

1914.



City and County of Bristol.

Annual Report

OF THE

Medical Officer of Health,

INCLUDING

Report of the Resident Medical Officer,

Ham Green Hospital and Sanatorium,

AND

Report of the Acting Tuberculosis Officer.

Printed by Order of the Health Committee.

BRISTOL:
Printed by JEFFERIES, SONS & CO., Baldwin Street.



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1915

HEALTH COMMITTEE,

1914.

The Right Honourable The Lord Mayor :

ALDERMAN JOHN SWAISH, J.P.

Chairman :

Councillor COLSTON WINTLE, M.R.C.S.

Deputy Chairman :

Councillor FRANK MOORE.

Alderman—

HENRY ANSTEY, J.P.

*(Chairman of Port Sanitary
Sub-Committee).*

WILLIAM TERRETT.

Councillors—

J. BARCLAY BARON, M.B.,
C.M.

E. M. DYER.

A. E. HILL.

J. E. JONES.

H. J. MAGGS.

*(Chairman of Finance
Sub-Committee).*

Councillors—

J. J. MILTON.

F. E. PEAKE, M.R.C.S.

W. SAISE, D.SC.

*(Chairman of Housing of the
Working Classes
Sub-Committee).*

G. THOMPSON.

C. J. THORNE.

G. S. WILMOTT

CITY OF BRISTOL.

Health Department, 1914.

Medical Officer of Health: D. S. DAVIES, M.D., L.L.D., D.P.H.

Chief Inspector: J. W. KIRLEY.

Superintendent Inspector: ‡*T. LOWTHER.

Housing Inspector: *†§A. W. GRIFFITHS.

Assistant Housing Inspector: *E. J. BURR.

District Inspectors:

G. E. BUSH,	Bedminster, W.	*†§T. J. CROFTS,	St. Philip,
*H. HASELL,	Horfield.	*F. KIRLEY,	Stapleton and
*J. WILKINSON,	Clifton.		St. George, N.W.
*H. J. KIRLEY,	Cotham.	*G. BEST,	Westbury-on-Trym
*†F. R. SLADE,	St. Paul.	*†J. B. PASKE,	St. George, E.
*†A. E. KING,	Knowle and	*†A. E. HALL,	St. George, S.W.
	Bedminster E.		and Redcliffe.

Inspector of Common Lodging Houses and Bakehouses: *S. O. DIMOND.

Inspector of Dairies, Cowsheds and Milkshops: *†H. C. LEAT.

Inspectors of Slaughter Houses, Meat and Fish:
S. THOMAS and *§A. GITSHAM.

Inspector of Workshops, &c.: *W. J. WREFORD.

Inspector of Tenement Houses: *†F. CLIFFORD.

Lady Health Visitors: { Miss HARRIS, C.M.B.
{ Miss RICHARDS, C.M.B.

Chief Clerk: L. W. A. STATTON. | *Statistical Clerk:* W. N. BROWN.

Clerks: { C. W. M. VINCENT, E. E. MASTERS, J. G. WATSON, H. DAVIS,
{ F. D. SAINSBURY, E. M. HISCON, C. BRYANT, W. G. HOBBS,
J. HUGUET, L. F. ROBERTS, F. N. BUDD

City Hospitals:

General Medical Superintendent (Supervisory): D. S. DAVIES, M.D.

Visiting Medical Officer at Novers Hill Hospital: G. C. PAULI, M.R.C.S.

Resident Medical Officer at Ham Green Hospital:

B. A. I. PETERS, B.A., B.C., M.D., D.P.H.

Assistant Medical Officer under the Tuberculosis Scheme:

P. A. GALPIN, M.D., M.B., B.S., D.P.H.

Bristol Municipal Tuberculosis Dispensaries:

Tuberculosis Officer: C. J. CAMPBELL FAILL, M.R.C.P. (Edin.)

Tuberculosis Nurses: Miss THOMSON, Miss STEER, Miss DIMOND, Miss MAGGS.

Clerks: F. R. MADDOCKS, H. F. JENKINS.

Port of Bristol:

Port Medical Officer of Health: D. S. DAVIES, M.D.

Assistant Port M.O.H.: J. C. HEAVEN, M.R.C.S., D.P.H.

Chief Port Inspector: S. O. DIMOND.

Port Inspector: A. DICKENS.

Assistant Port Inspector and Boatman: W. GOUGH.

Inspector of Foods: *||J. A. ROBINSON.

|| Surveyor's Certificate Sanitary Institute. * Inspector's Certificate Sanitary Institute. † Registered Plumber. § Meat Certificate, Sanitary Institute.
London Inspector's Examining Board Certificate; Meat Certificate Sanitary Institute; Meat Certificate, Liverpool University.

HEALTH DEPARTMENT.

Of the foregoing the following are now on Military
or Naval duty:—

C. J. Campbell Faill, Surgeon, R.N.,
H.M.S. "Queen Elizabeth."
P. A. Galpin, Lieut, 2nd (Reserve) London Sanitary
Company, R.A.M.C. (T.)
Miss E. F. Dimond, } Queen Alexandra's I. Mil. Nurs.
Miss A. Evans-Harris, } Service Reserve,
H. J. Kirley, National Reserve Guard.
F. Kirley, Glo'ster R.F.A.
W. G. Hobbs, Glo'ster R.F.A.
F. N. Budd, Glo'ster R.F.A.
J. Huguet, Glo'ster R.F.A.
H. F. Jenkins, 12th Battalion Glo'ster Regiment
(Bristol's Own)

Other members of the Staff also serving:—

A. Hill, "A" Company, Hawke Battalion, Naval
Division.
T. Rogers, R.A.M.C.
F. Horseman, 4th Battalion Glo'ster Regiment
R. Sollars, National Reserve Guard.
H. F. Spray, A.S.C., Mechanical Transport.

The following temporary Staff has been engaged :

Temporary Inspector—P. C. Bull.
Temporary Clerks—* R. Redman, † A. R. Sherman,
H. Adams.

* Since joined Glo'ster R.F.A.

† Since joined 12th Battalion Glos. Regt.

ANNUAL REPORT

PART I.

CITY AND COUNTY OF BRISTOL.

Site and Soil.

Bristol is situated in N. Lat. $51^{\circ} 27$ ft. 6·3 ins., and W. Long $2^{\circ} 35$ ft. 28·6 ins. The old city lies in great part on low ground in a broad valley lined by the alluvial deposit of the Avon, and its tributary the Frome; parts of the city, *e.g.*, High Street and Redcliff, being upon higher ground on the new red sandstone (trias), through which rock the New Cut or artificial course of the Avon has been made, and upon which Bedminster is built.

The high table-land of Clifton, Cotham and Redland, to the north and west of the City, is situated upon the denuded edges of an anticlinal arch of carboniferous rocks, upon which, in certain limited areas, beds of newer formation (*e.g.*, lias), lie unconformably. On Clifton and Durdham Down the carboniferous limestone is exposed over a large area; and here the gorge of the Avon, cut by the river as it turns to the north to join the Severn, forms the western boundary of the district.

The steep ascents, extending from Granby Hill on the west, past Brandon Hill to St. Michael's Hill and Marlborough Hill on the east, are on the outcrop of the millstone grit.

Considerable portions of the north-east and east parts of the City lie upon the new red sandstone, while Totterdown, part of Cotham, and the slope towards Ashley are upon beds of lias limestone.

Population and Acreage.

The estimated population of the City at the middle of 1914 was 363,312 persons, upon an area of 17,460 acres.

TABLE A.**

Showing Population, Acreage, and number of Persons per acre (Density) in each of the Registered Sub-Districts of Bristol for 1891, compared with the same data for 1914.

Registration Sub-Districts, 1891, (Census Year).	Acreage	Population middle of 1891	Density, 1891	Registration Sub-District 1914	† Average	Estimated Population 1914	Density 1914
St. Mary Redcliff	170	9,287	54·6	†||**Bristol Central	719	35,968	50·0
Castle Precincts-	119	5,558	46·7				
St. Paul -	148	19,046	128·6				
St. James -	68	7,817	114·9				
St. Augustine -	250	13,788	55·1	**Bedminster	1,952	62,643	32·0
Bedminster -	992	45,812	46·1	Knowle -	1,108	22,765	20·5
				**Clifton -	1,269	41,071	32·3
Clifton -	921	29,361	31·8	Ashley -	2,157	49,323	22·8
Ashley -	434	24,190	55·7				
Westbury -	692	15,546	22·4	**St. George	1,994	60,165	30·1
				**St. Philip	604	49,864	82·5
St. Philip -	744	51,650	69·6	Stapleton -	2,573	27,869	10·8
				Westbury-on-Trym -	5,084	13,644	2·6
	*						
Bristol City, 1891	4538	222,049	48·93	Bristol City, 1914	*17,460	363,312	20·80

* Ordnance calculation, including water areas. † Census, 1911.

‡ The Registrar General of Births, Deaths and Marriages, ordered and declared, that on and after 1st April, 1904, St. Augustine Sub-District shall be united with St. Paul Sub-District, and the enlarged Sub-District so formed, shall be called and known as St. Paul and St. Augustine Sub-District.

|| The Registrar General of Births, Deaths and Marriages, ordered and declared, that on and after 1st December, 1905, the St. Mary Redcliff Sub-District shall be united with St. Paul and St. Augustine Sub-District, the enlarged Sub-District to be called and known as Bristol Central Sub-District.

** Considerable alterations were again made in the Registration Sub-Districts in April, 1909.

CITY OF BRISTOL.

Population, estimated to the Middle of 1914.

Registration Sub-Districts			Estimated Population	
Clifton	41,071
Eristol Central	35,968
Bedminster	62,643
Knowle	22,765
St. George	60,165
St. Philip	49,864
Stapleton	27,869
Ashley	49,323
Westbury-on-Trym	13,644
Total			...	363,312

POPULATION AT GROUPS OF AGES.					
			Persons	Males	Females
All Ages	...	...	363,312	166,442	196,870
Under 5 years	...	...	36,031	18,150	17,881
5 and under 10	...	...	36,720	18,304	18,416
10	„	15	36,193	17,796	18,397
15	„	20	36,049	16,339	19,710
20	„	25	32,304	13,307	18,997
25	„	30	30,127	13,055	17,072
30	„	35	28,721	12,904	15,817
35	„	40	26,067	12,024	14,043
40	„	45	22,663	10,414	12,249
45	„	50	19,334	8,858	10,476
50	„	55	15,739	6,983	8,756
55	„	60	12,620	5,642	6,978
60	„	65	10,431	4,623	5,808
65	„	70	8,659	3,740	4,919
70	„	75	5,842	2,281	3,561
75	„	80	3,372	1,282	2,090
80 years and upwards	...	...	2,440	740	1,700

(Figures supplied from the Registrar-General's Office).

CENSUS RESULTS, 1911.

The total population in the registration district of Bristol at the 1911 census was 357,059, as compared with 339,042 in 1901, an increase of 18,017.

The Sub-Districts.

The comparative figures for the nine registration sub-districts, as given in the preliminary report of the Registrar-General, are as follows:—

	1901	1911	Increase	Decrease
Clifton	46,445	42,466	—	3,979
Bristol Central ...	45,662	38,485	—	7,177
Bedminster	56,959	61,176	4,217	...
Knowle	12,645	20,150	7,505	...
St. George	53,629	58,478	4,849	...
St. Philip and St. Jacob	51,225	50,215	...	1,010
Stapleton	21,236	26,149	4,913	...
Ashley	41,790	47,378	5,588	...
Westbury-on-Trym	9,451	12,562	3,111	...
			30,183	12,166
Totals	339,042	357,059	18,017	increase

Changes since 1901 Census.

It is necessary to explain that in some cases the changes are accounted for by alterations effected in the areas of the Sub-Districts between 1910 and 1911. St. Augustine's has been taken away from Bristol Central and added to Clifton, the Redland Ward has been transferred from Clifton and added to the Ashley sub-district, and St. James and St. Paul have been taken out of the Ashley district and added to the Central. These are some of the changes made. But so far as Knowle, Bedminster, St. George and Stapleton are concerned, the increases are genuine, and show that during the past ten years there have been considerable developments in those portions of the City.

How the Sub-Districts are Constituted.

An explanation as to the constitution of the sub-districts may be added. In the Clifton sub-district are comprised the municipal wards of Clifton North and South, and St. Michael and St. Augustine; Bristol Central is made up of the Wards of St. Paul, St. James, Central East, Central West, and Redcliff. Bedminster consists of Bedminster East and West, and Southville Wards; Knowle of the Somerset Ward; St. George of St. George's East, and West, and No. 2 polling district of Easton Ward; St. Philip and Jacob, of St. Philip and Jacob North and South Wards, and No. 1 polling district of Easton Ward; Ashley, of the Horfield District and Redland Wards; Stapleton, of the Stapleton Ward; and Westbury-on-Trym, of the municipal ward bearing that name.

POOR LAW RELIEF.

BRISTOL UNION.—Summary of Persons relieved on the following dates: the first date (1st April, 1898) being the date of the formation of the Union for the City and County of Bristol.

YEAR	In Workhouse and Children's Homes.	In Institutions, &c.	In Lunatic Asylums	Out-door Poor	TOTAL	Weekly Cost of Out-Relief
1st April, 1898	2,357	114	826	7,796	11,093	£ s. d. 724 6 1
„ 1899	2,281	116	824	6,409	9,630	683 14 11 ³ / ₄
„ 1900	2,305	127	810	5,847	9,089	644 14 7
„ 1901	2,408	127	830	5,837	9,202	662 18 4 ³ / ₄
„ 1902	2,355	148	847	5,845	9,195	697 16 9 ¹ / ₃
„ 1903	2,388	155	856	5,829	9,228	710 0 10 ¹ / ₂
„ 1904	2,513	149	859	6,030	9,551	746 4 3 ¹ / ₂
„ 1905	2,578	159	869	6,425	10,031	803 19 8
„ 1906	2,528	146	875	6,116	9,665	792 12 2 ¹ / ₂
„ 1907	2,653	148	881	5,921	9,603	765 14 1 ¹ / ₂
„ 1908	2,745	135	863	5,696	9,439	756 8 3
„ 1909	2,855	125	831	5,585	9,396	765 13 4
„ 1910	2,944	123	859	5,764	9,690	785 6 5
„ 1911	2,874	139	883	4,280	8,176	504 0 10 ¹ / ₄
„ 1912	2,927	131	867	4,472	8,397	589 9 8
„ 1913	2,758	167	849	4,037	7,811	509 9 9
„ 1914	2,566	168	881	3,872	7,487	507 18 8
„ 1915	2,605	151	788	3,551	7,095	573 3 11

*This Union was much increased in area and population in October, 1904.

†This reduction is due to the large number of cases transferred to the Old Age Pension List.

CITY OF BRISTOL.

Extent to which Hospital and other forms of gratuitous medical relief were utilised during 1914.

Number of patients treated as—

	In-Patients.	Out-Patients.
Bristol General Hospital...	3,458	38,171
Bristol Royal Infirmary ...	4,678	40,781
Bristol Royal Hospital for Sick Children and Women ...	1 230	5,045
Cossham Memorial Hospital ...	393	391
Bristol Homœopathic Hospital ...	81	1,989
Bristol Dispensary ...	—	11,684†
Bristol and Clifton Dispensary for Ulcers and other Chronic Diseases of Legs ...	—	700
Clifton Dispensary ...	--	2,229
Eye Dispensary ...	50	2,532
Eye Hospital ...	538	18,384
Bristol Private Hospital for Women and Children ...	131	—
Lying-in Hospital and Temporary Home ...	87	--
Medical Missionary Dispensary ..	--	9,636
Orthopædic Hospital and Home for Crippled Children ...	43	--
Read Dispensary ...	--	2,400
Voluntary Lock Hospital ...	54	
Queen Victoria Jubilee Convalescent Home ...	1,670	--

† 373 of these were Midwifery patients.

Number of Patients treated at the Hospitals and Institutions owned by the Bristol Corporation during 1914.

	In-patients.	Out-patients.
Ham Green Hospital (Fevers) ...	1,580	—
Novers Hill Hospital (Small-pox or Fevers) ...	379	--
Ship Hospital, Avonmouth (Port) ...	0	--
Ham Green Sanatorium ...	104	--
Clift House Sanatorium ..	92	—
Bristol Municipal Tuberculosis Dispensaries : 19 Portland Square and 4 Redcliff Parade West ..	--	1,741

WATER SUPPLY.

The Bristol Water Works Company.

SOURCES OF SUPPLY.—(1) Springs in the triassic conglomerates and carboniferous limestone of the Mendip Hills, 16 miles from the City, (2) The Yeo Reservoir and Richford and Langford Springs, 12 miles from City. (3) Deep Well at Chelvey in the new red sandstone (triassic).

STORAGE RESERVOIRS.—At Barrow Gurney, where the water is filtered before delivery.

WATER SERVICE.—Constant.

AVERAGE DAILY CONSUMPTION. — Twenty - three gallons per head.

The City Analyst furnishes the following report:—

ANALYSIS OF WATER.

Eighteen samples of Water were examined. Twelve were received from the Medical Officer of Health; of which number, nine showed evidence of sewage pollution, one was a dirty tidal water, one was a ground water polluted by surface drainage, and one was uncontaminated but was condemned on account of excessive hardness.

Five were received from the City Engineer; two of these were grossly polluted, and the remaining three showed only slight or accidental pollution, but a large excess of hardness.

One sample from the Town Clerk showed evidence of sewage pollution. The waters examined in many cases showed evidence of microscopic Flora and Infusorians; those contaminated by sewage showed the presence of *Paramœcium*, *Aurelia* and *Rotiferæ*, and those polluted by surface drainage showing *Diatoms*, *Desmids*, *Pleurococcus*, *Algal filaments* and *Vorticella*.

THE CITY SUPPLY.

The following table shows the composition of the City Supply during the year:—

ANALYTICAL DATA (Chemical and Bacteriological) OF CITY WATER SUPPLY. 1914.

Number of Sample Date of Collection Place of Collection Physical appearance Remarks on solids	1 30th January. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		4 26th February. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		5 13th March. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		11 20th June. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		19 21st August. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		22 22nd October. Barrow Gurney. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.		24 21st December. Tap in Laboratory. Clear, bright, neu- tral to litmus. No smell on heat- ing solids.	
	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.
Free Ammonia	traces	0056	nil	0035	007	005	0035	0025	nil	006	traces	0042	nil	0042
Albuminoid Ammonia	008	0078	005	0035	007	005	0035	0025	009	006	0007	0042	006	0042
Nitrogen in Nitrates	112	10	19	133	138	089	114	10	nil	08	traces	056	08	056
Chlorine as Chlorides	143	1420	129	9	121	05	13	9	13	132	105	024	132	024
Total Hardness	..	600	..	1310	..	1130	..	1260	..	..	..	1260	..	1260
Permanent Hardness	..	820	..	630	..	550	..	520	..	..	..	650	..	650
Temporary Hardness	..	2205	..	680	..	580	..	740	..	..	..	610	..	610
Total Solids	315	2205	31	217	270	154	280	196	260	3525	219	2467	3525	2467
Mineral Matter	230	161	275	1925	220	..	235	165	235	2910	..	2037	2910	2037
Loss on ignition	85	59	35	245	50	35	45	31	25	615	525	430	615	430
Nitrites	nil	0126	nil	nil	nil	nil	nil	nil	nil	024	nil	0168	024	0168
Oxygen Absorbed	018	0126	—	—	—	—	—	—	019	013	006	—	024	0168
Colonies per cc on { Gelatine at 22°C	..	..	75	75	20	20	..	..	..	..	—	..	..	..
Colonies per cc on { Agar at 37°C	5	5	nil	nil	7	7	..	..	..	..	6	..	..	..
MacConkey's Bile { Salt broth (B. coli { test) 25°C water used	Gas:— Acidity:—	— —	— —	— —	— —	— —	..	..	..	..	— —	..	..	..

OPINION.—The organic purity of the City supply is maintained, the variations in the albumoid ammonia being slight, the figures for oxidised nitrogen and hardness being low. The bacteriological figures are equally satisfactory.

EDWARD RUSSELL, B.Sc. (Lond.), F.I.C., F.C.S.

Sewerage, Drainage, Scavenging, etc.

All these matters are reported upon annually by the City Engineer to the Sanitary Committee, and the report is published.

Parks and Open Spaces.

The Parks and Open Spaces available for the recreation of the people comprise in all 801 acres, including Clifton and Durdham Downs, which have a combined area of 442 acres.

Of the 801 acres, 358 are laid out as parks, gardens, or playgrounds; but the public has the right to wander over about 603 acres. Cricket pitches are allowed on Durdham Down and in five of the Parks, where also Bowling Greens and Tennis Courts have been laid out. In two parks, lakes are provided with Boats. The annual cost of the Parks and Open Spaces is about £7000.

School Medical Service.

The number of children attending the Board Schools in September, 1897, before the extension of the City, was 18,077, and attending other Schools was 21,868; or a total of 39,945. In 1898 the City was enlarged. A further enlargement took place in 1904, and by the 1st January, 1915, the total number of scholars on the registers of the schools controlled by the Education Committee was 59,863.

		No of Schools.	No of Children on Registers
Council Schools	... ..	44	39,089
Church of England Schools	... ..	40	17,634
Wesleyan Schools	... ..	1	684
Roman Catholic Schools	... ..	5	1,735
Schools for Mentally and Physically Defective	... ..	3	402
Industrial Schools	... ..	2	109
Open-air Schools	... ..	2	97
Deaf Institution	... ..	1	53
School for Myopic and Partially Deaf Children	... ..	1	60
		<hr/>	<hr/>
		99	59,863

Since 1905 the Education Committee have excluded children under five years of age from certain Schools.

In some of the poorer districts, however, children under five are admitted.

The number of children under eight years of age on the registers of the Public Elementary Schools on 31st January; 1915, was 21,668, and of that number 3,293 were under five years of age.

The School Medical Service has been provided by the Education Committee under the Education (Administrative Provisions) Act, 1907, and subsequent Acts, independently of the Health Committee.

The City has been divided into five districts, to each of which a part-time Medical Officer, in general practice has been appointed; and arrangements are made for these to devote as much time to the work as is necessary to encompass the requisite number of inspections. In 1914 Dr. R. A. Askins was appointed whole-time School Medical Officer.

Four whole-time School Health Visitors or Nurses have been appointed. These Nurses are chiefly engaged, under Medical instructions, at work in School Clinics, and in examining children at the schools in regard to skin disease, cleanliness, &c; they also visit the homes, and advise the parents.

The School Medical Officer now makes a detailed examination of the Hygienic condition of the schools.

The School Medical Officer issues a separate report.

SCHOOL BUILDINGS.

The following structural improvements were made during the year:—

Improved Ventilating Arrangements—

Avonmouth National Voluntary School
Merrywood Secondary School.
Park Place Voluntary School.
Avon Vale Council School.
Barton Hill Girls' Council School.
Castle Infants' Council School.
Greenbank Council School.
Mina Road Girls' Council School.
Sussex Street Mixed Council School.
Whitehall Infants' Council School.
Day Industrial School Swimming Bath.
Deaf Institution Workshop.

Artificial Lighting Improvements—

Merrywood Secondary School.
Fishponds College Girls' Voluntary School.
Bishop Road Girls' Council School.
Chester Park Infants' Council School.
Deaf Institution.

Alterations and Repairs to Heating Arrangements—

St. George (Brandon Hill) Infants' Voluntary School.
Air Balloon Hill Council School.
Mina Road Girls' Council School.
Mina Road Infants' Council School.
Summerhill Girls' Council School.
Summerhill Infants' Council School.

Electric Lighting has been introduced at Ashton Gate Council School and extended at the St. George Secondary School, and at Barton Hill Infants' Council School.

At Summerhill Infants' School the flooring of the cloak room has been relaid.

A new play-shed has been erected at Knowle Infants' Council School.

In the Junior Mixed Department of Sussex Street Council School a portion of the wood flooring has been renovated.

Additional latrines have been erected at St. Philip's Boys' Council School, and the closet accommodation at Shirehampton Council School increased.

Galleries have been removed at Sussex Street Junior Mixed and Infants' Council Schools.

At Barton Hill Girls' Council School and Bedminster Down Council School fountains have been placed in the playgrounds.

Cloak-room accommodation has been increased at Whitehall Infants' Council School.

R. A. ASKINS, M.D., D.P.H.,
School Medical Officer.

Table showing the number of cases of notifiable Infectious diseases among children attending the Public Elementary Schools.

1914.

	1st Quarter, ending April 4th	2nd Quarter, ending July 4th	3rd Quarter, ending Oct. 3rd	4th Quarter, ending Jan. 2nd, 1915.	Total
Diphtheria ..	72	30	66	173	341
Scarlet Fever ..	507	251	216	394	1368
Enteric Fever ..	10	15	3	..	28
Totals ..	589	296	285	567	1737

Table showing the number of cases of non-notifiable diseases among children attending the Public Elementary Schools forwarded to the Medical Officer of Health.

1914.

	1st Quarter, ending April 4th	2nd Quarter, ending July 4th	3rd Quarter, ending Oct. 3rd	4th Quarter, ending Jan. 2nd, 1915	Total
Measles ..	880	387	76	92	1435
Chicken-pox ..	178	152	49	126	505
Whooping Cough	66	43	176	404	689
Mumps ..	330	75	27	185	617
Suspicious Throats, Rashes, etc.	12	3	..	12	27
	1466	660	328	819	3273

**PUBLIC HEALTH (MILK & CREAM)
REGULATIONS. 1912.**

Report for the Year ending 31st Dec., 1914.

1.—Milk and Cream not sold as preserved Cream—

			(A) Number of Samples examined for the presence of a Preservative.		(B) Number in which a Preservative was reported to be present.
Milk	..	..	653	..	Nil
Skim Milk	..	..	7	..	Nil
Condensed Milk	..	..	4	..	Nil
Cream	..	..	11	..	5

Nature and amount of Preservative found in Cream—

					Action taken under Regu- lations in regard to it.
·11 per cent. Boric Acid	..	..	..	..	Cautioned
·15	"	"	..	..	Do.
·15	"	"	..	..	Do.
·15	"	"	..	..	Do.
·15	"	"	..	..	Do.

2.—Cream sold as Preserved Cream—

(A)	1--Correct statement made	..	..	1
	2--Statement incorrect	..	..	—
	Total	..	..	1

Determinations made of milk fat in Cream sold as Preserved Cream—

(B)	1--Above 35 per cent	..	..	..	1
	2--Below 35 "	..	..	..	—
	Total	..	..	..	1
(D)	Nil.				
(C)	Nil.				

3.—Thickening substance—NIL.

EDWARD RUSSELL, B.Sc. (Lond.), F.I.C., F.C.S.

Public Analyst and Bacteriologist.

Mr. Edward Russell, B.Sc. (Lond.) F.I.C., F.C.S., City Analyst, has kindly supplied the following returns for 1914.

"FOOD & DRUGS WORK.

During the year 1,230 samples were submitted for analysis. All the samples were received from the Inspector.

The following tables show the nature and number respectively of the samples submitted, with the number reported genuine and the number adulterated :—

Number of samples examined	...	1,230
„ „ genuine	...	1,149
„ „ adulterated	...	81

ARTICLE	Number Examined	Number Genuine	Number Suspicious	Number Abnormal	Number Adulterated	Per cent. Adulterated
Milk	653	593	13	3	60	9.2
Milk (Skim) ..	7	7	0	0	0	0
Cream	12	7	0	0	5	41.6
Condensed Milk	4	4	0	0	0	0
Butter	226	221	7	10	5	2.2
Margarine ..	23	23	0	0	0	0
Cheese	8	8	0	0	0	0
Lard	14	14	0	0	0	0
Dripping ..	11	10	0	0	1	9.1
Spirits	54	51	2	0	3	5.5
Sugars and Sweets	20	20	0	0	0	0
Flours	49	49	0	0	0	0
Vinegar	8	6	0	0	2	25.0
Coffee and Chicory	27	26	0	0	1	3.4
Cocoa	2	2	0	0	0	0
Pepper	17	17	0	0	0	0
Mustard	10	7	0	0	3	30.0
Tea	18	18	0	0	0	0
Gravy Browning	1	1	0	0	0	0
Lemonade Crystals	7	7	0	0	0	0
Mineral Waters	11	11	0	0	0	0
Lemon Cheese	2	2	0	0	0	0
Baking Powder	6	6	0	0	0	0
Jellies	6	6	0	0	0	0
Drugs	34	33	0	0	1	2.9
	1230	1149	22	13	81	7.15

Of the 1,230 samples examined, 676 were sealed—having been divided in accordance with the regulations of the Food and Drugs Act—an 1554 were unsealed. The examination of all the samples is equally directed to the detection of abnormalities of composition, and adulteration, and therefore no distinction between samples—sealed and unsealed—is convenient or of value.

The working of these Acts in the City of Bristol is entrusted to an Inspector acting under the Watch Committee and is not administered by the Health Committee.

THE ANALYSIS OF RAG FLOCK, &c.

Eight specimens of Flock were examined, and the following figures were obtained :—

Less than 15 parts of Chlorine per 100,000 parts of Flock	(3)
Between 15 and 30 parts of chlorine per 100,000 ditto	(3)
Above 30 parts of chlorine per 100,000 ditto	(2)

The specimens which exceeded the legal limit consisted microscopically of a mixture of cotton and wool with other fibre, probably linen or hemp, but the one specimen, (evidently the dirtier) contained only 46 parts of chlorine, while the other contained 420 parts, the chlorine in this case being due to mineral chloride and probably not derived from sewage contamination.

Convictions were obtained in these cases.

LIME. Two samples of Lime received from the Medical Officer of Health gave the following figures :

	BUXTON LIME	LOCAL LIME
Calcium Oxide (CaO)	94·4 per cent.	97·3 per cent.
Magnesium Oxide (MgO)	1·5 „	Traces
Siliceous Matter	·4 „	1·3 per cent.
Ferric Oxide (Fe ₂ O ₃)	·2 „	·1 „
Alumina (Al ₂ O ₃)	3·5 „	1·3 „
Loss on Ignition	100·0 per cent.	100 per cent.

PARAFFIN. Two samples were examined for the Medical Officer of Health with the following results :—

	(1)	(2)
Physical Character	Turbidity (traces of water).	Colourless
Specific Gravity	822·7	822·5
Distilled between 150°C—300°C ...	92 per cent.	92 per cent.

TOXICOLOGICAL EXAMINATIONS.

The following inquiry was undertaken :

TINNED SALMON, received from Inspector Robinson, Food Inspector, Medical Officer of Health's Department.

On opening the tins there was no growth after inoculating Broth and Agar. Portions tested for boric acid gave no reaction. Portions acidified with H₃PO₄ and distilled; the distillate oxidised with Br. and tested with BaCl₂. There was no evidence of sulphites.

Housing of Working Classes.

The following Table shows the action taken over a period of 20 years :—

DATE.	No. of Houses dealt with.	No of Houses closed.	No. of Houses made habitable.
1890	35	30	5
1891	72	27	45
1892	26	18	8
1893	2	0	2
1894	34	18	16
1895	31	18	13
1896	28	10	18
1897	4	3	1
1898	9	7	2
1899	33	31	2
1900	21	6	15
1901	6	1	5
1902	64	61	3
1903	67	58	9
1904	34	16	18
1905	28	11	17
1906	9	9	0
1907	18	15	3
1908	30	12	18
1909	17	9	8
Total ..	568	360	208

HOUSING SUB-COMMITTEE OF THE
HEALTH COMMITTEE.

CHAIRMAN - DR. WALTER SAISE.

Under the energetic Chairmanship of Dr. Saise this Committee has secured a very large amount of work since its appointment.

Work under the Housing Acts may secure considerable benefits to a community, if care be taken not to allow the mere closing of houses to degenerate into a habit. In this respect I think it is fortunate that Inspector Griffiths tempers zeal with discretion, and shows as much proper care for the owner as for the tenant. But the energy of the Committee necessitated the allocation of a Second Inspector to this Department in December, 1914, thus depleting the District Staff.

The first year's record promises well for real progress.

D. S. DAVIES, M.D.,

Medical Officer of Health.

R E P O R T
on Work done under
The HOUSING, TOWN PLANNING, &c., ACT, 1909,
during the Year 1914.

In presenting my first Annual Report on the work done under the Housing Acts during the year 1914, it will not be out of place to explain what appears to me to be one of the causes of the large number of houses in Bristol letting at rentals not exceeding £26 a year which are unfit for human habitation at the present time.

During the decades 1880 to 1900, private enterprise more than supplied the demand for houses for the working classes. Many people who had money invested it in house property, staking one-third or more of the purchase-money, and obtaining the remainder by raising a mortgage. The price of houses during these years was somewhat inflated. From 1904 onwards a slump set in, and house property has depreciated far below its real value; consequently landlords have, in many instances, lost all financial interest in their houses, and no inducement is offered to undertake the repairs which are required to be done from time to time to keep the houses in a tenable condition; hence the houses become so neglected that it requires a considerable expenditure to put them in a thorough state of repair. Under the circumstances the landlord's only interest is to obtain as much rent as he can get for a house rapidly becoming uninhabitable, and when pressed to carry out adequate repairs, he allows the mortgagees to take possession. Frequently mortgagees have no desire to undertake the responsibilities of landlords, and are quite content to let anyone who will, take over the houses with the liability of keeping their interest alive; or realising that their interest is a vanishing one, will sell

at a sacrifice. In the former circumstances it is impossible to get a house repaired thoroughly, and it is inadvisable to apply the provisions of section 15 of the Housing, Town Planning, etc., Act, 1909, to houses owned under these conditions. Mortgagees in possession are at present selling houses for sums varying from £5 to £30 per house. The new landlord objects to spending a sum far in excess of the purchase money in repairs, to comply with the requirements of the Housing, Town Planning, etc., Act, 1909.

The construction of the older type of house for the working classes, without any—or with an inefficient—damp-proof course, with its front parapet walls, and zinc gutters between the “M” roofs and the flat pitch roofs, has made it a very expensive building to keep in repair. In well-built houses of this type, provision is made to counteract any weaknesses; but in the poorer houses the slightest defect in the zinc gutters or a heavy storm spoils the appearance of the ceilings and walls, as well as making unfit the room, or rooms, so affected. Owing to the absence of an efficient damp-proof course, the internal walls become insanitary, and also constant expense is involved by the frequent re-papering in order to keep the rooms decent and in a presentable condition. The fixed top sash of the windows is another characteristic of this type of houses, and apart from the insufficient ventilation, it prevents the housewife from cleaning the first-floor windows. The services of a professional window cleaner are quite beyond their reach. An important defect also is the absence of ventilated larder accommodation. In no case where I have had a house repaired have I been able to secure this provision. The food larder in the majority of the modern houses is under the stairs, and without ventilation; but in houses without this unsatisfactory larder the food is kept in a cupboard or on a table, in the living-room. Imagine houses such

as the latter in St. Philip's Marsh ! The possibilities of food contamination by flies !

Many of the difficulties and defects in the older type of houses have been created by the lack of foresight and want of supervision during construction prior to the 1875 Public Health Act coming into force. Owners are not backward in pointing this out.

If landlords would reserve a portion of their rents for depreciation each year, and repair their property more frequently, fewer houses would be condemned as unfit for human habitation. A house cannot last for ever, especially the speculatively built one ; it must, if neglected, eventually fall into disrepair. It becomes insanitary from various causes having relation to its environment, equipment, design, usage, etc. There are hundreds of houses in Bristol to-day that could be saved if the roofs were stripped, parapet walls and zinc gutters abolished, and the straight or stable roof, with ridge parallel to front and back walls, eaves and rain-water shuting and down-pipes provided ; efficient damp-proof courses inserted ; if back-to-back houses were converted into single houses with through ventilation ; if houses without through ventilation had it provided ; if external walls were properly cemented or rough-casted with brown lime mortar ; if lighting areas were increased and sashes made to open ; plastering of internal walls made good ; floors and other woodwork renewed ; sink, water-tap and ventilated pantry provided. With these requirements effected there would be no cause left to condemn or demolish a house so improved. A tenant cannot reasonably be expected to take an interest in a dilapidated house ; there is an inclination to let everything slide, and thus the nucleus of a slum is formed. Owing to the lack of room, tenants who endeavour to take a

house-pride in a house, have to do their washing, etc., under great difficulties, and the open space, if any, is frequently of an insufficient size to allow for the drying of the clothes, and consequently they have to be dried in the living-rooms, to the great discomfort of the occupants. Many of our courts are provided with only one water-tap for the use of all the houses ; the w.c.'s are not flushed, and it is somewhat of an undertaking to carry buckets of water from the tap in the front area to the w.c.'s at the back of the houses for the necessary flushing and cleansing of pans.

Landlords often have much cause for complaint about tenants with dirty and destructive habits. It is an undisputed fact that tenants have been known to wilfully and wantonly destroy doors and other wood-work to obtain firewood ; and some consider it too much trouble to wash the floors, clean the windows, tidy the house, and pay attention to their personal appearance. Houses occupied by such persons require constant supervision. I regret that there is no legislation that can be brought to bear on these undesirable tenants to compel them to do their part. I sincerely hope in the near future this necessary legislation will be enacted, and proceedings may be taken where it is proved, after a house has been thoroughly repaired and made fit by the landlord, that any defect is due to the wilful act or default of a tenant. Convictions under this head should be recorded so that landlords may be protected from letting their houses to persons who are obviously unfit to rent a private house.

There are many areas in Bristol which are very congested. The dwellings in these areas are small, and the majority of them quite worn out ; it is hopeless attempting to repair them. The only thing that can be done is to close and demolish them, or to prune liberally, thus providing more air-space, and room for alterations

and repairs to those allowed to remain. The provision of asphalted playgrounds on the cleared sites would be a boon to the children.

Improved housing conditions must have a beneficial effect on the habits of the slum-dweller. Habits of years become inbred, and are not easily eradicated. Patience is greatly needed; and, combined with supervision, helpful advice, and tact, will ultimately lead to a better condition of affairs, both for landlord and tenant.

Your Inspectorial staff has co-operated well with me in carrying out the Housing work, and the results speak more than I can say with regard to the keen interest they have displayed.

A very gratifying feature is the number of owners who come to my office for advice as to repairs, insertion of damp-proof courses, etc., thus proving that the work done under the Housing Acts is primarily of an educational character. Owners have informed me that they notice a considerable improvement in the habits of tenants after their houses are thoroughly repaired, and rents, though increased, are paid more regularly.

I wish to draw your attention to the fact that no houses to let at 5/6 or under per week have been built in Bristol during the years 1911, 1912, 1913 and 1914. The congestion is becoming very acute, and if private enterprise cannot provide houses for the working classes, it will be necessary for the Municipality to do so.

In many of our towns large employers of labour have realised that in order to obtain a maximum amount of efficiency from their employees, they must see that they are housed under the most favourable conditions. This has only been attempted on a small scale in Bristol.

The following tables record the work done under the Housing, Town Planning, etc., Act, 1909, since January 1st, 1910:—

Housing, Town Planning, &c., Act, 1909.

Year	No. of houses inspected.	Found Defective	No. Action taken	Made habitable	Out-standing at end of Year	Reported as Unfit.	CLOSED		CLOSING ORDERS DETERMINED		No. of families dehousing (Notices to quit carried into effect.	DEMOLISHED	
							Under Order	Voluntarily without Notice	No.	Date of C.O.		Under Order	Voluntarily
1910	611	402	209	235	94	44	18	53	..	..	18	..	25
1911	1352	1020	332	794	118	95	89	36	3	1911	86	..	33
1912	453	408	45	314	31	35	34	38	12	1911	22	..	11
1913	541	447	94	248	42	120	42	117	6	{ 3-1912 } { 3-1913 }	36	13	37
1914	3875	2903	972	1455	940	508	88	161	22	{ 9-1912 } { 9-1913 } { 4-1914 }	62	4	157
TOTALS	6832	5180	1652	3046	1225	802	271	405	43	..	224	17	263

No. of houses closed and demolished for extension of business and Institution premises during 1914

(These were not tabulated previous to 1914.)

Total number of houses closed from all causes, 1890 to end of 1914

Total number of families dehousing by Closing Orders made 1910 to end of 1914

Number of houses demolished or closed from all causes from 1st January, 1910, to 31st December, 1914

Number of houses erected to let at or under £26 per annum from 1st January, 1910, to 31st December, 1914

Number of houses erected to let at or under £26 per annum during the year 1914

Number of void houses to let at or under 5s. per week at end of 1914 (of this number 240 are unfit for human habitation)

* NOTE.—I have ascertained approximately the number of houses closed and demolished for business extensions, &c., during the years 1910 to 1913, and have included them in this total. No houses have been erected in Bristol to let at 5s. 6d. per week or under during the past 4 years.

March, 1915.

A. W. GRIFFITHS, *Housing Inspector.*

HOUSING, TOWN PLANNING, ETC. ACT, 1909.

Summary of Work done during the Year 1914.

District	No. of Inspections	No action required	Represented as unfit.
Ashley	... 231	71	5
Bedminster	... 887	243	114
Bristol Central	... 425	76	187
Clifton	... 102	44	27
Knowle	... 160	117	0
St. George	... 1056	142	65
St. Philip	... 719	155	95
Stapleton	... 195	67	11
Westbury-on-Trym	100	57	4
Totals	3875	972	508

Number of houses represented as unfit ... 508

Specifications of repairs received and approved ... 186

Closing Orders made ... 88

Closing Orders deferred or under consideration ... 234—508

Number of houses where drastic repairs were required, dealt with by Housing Inspector's Notices ... 1376

Number made fit ... 987

Number outstanding... 389—1376

Number of houses where less drastic repairs were required, dealt with by District Inspectors' Notices ... 1019

Number repaired ... 468

Number outstanding ... 551—1019

Number of houses in so satisfactory a condition that no action was required ... 972

HOUSING, TOWN PLANNING, ETC., ACT, 1909.

Unfit Houses.

Number made fit for habitation	...	...	70
Back-to-back houses provided with through ventilation	...	...	34
Back-to-back converted into single houses	...	...	10
1914 Closing Orders determined during 1914	...	...	4
Previous Closing Orders determined during 1914	...	...	18
Number of Demolition Orders made	...	...	4

Summary.

Houses represented as unfit	...	...	508
Number made fit under Housing Inspector's Notice	...	...	987
Repaired under District Inspectors' Notice	...	...	468-1455
Number outstanding under Housing Inspector's Notice	...	...	389
Number outstanding under District Inspectors' Notice	..	...	551-940
Number requiring no action	...	...	972-3367
Total Inspections	...	...	3875
Number of represented houses visited by the Housing of the Working Classes Sub-Committee during 1914	...	...	511

Summary of Unfit Houses dealt with under the Housing, Town Planning, etc., Act, 1909.

DISTRICT.	NUMBER REPRESENTED AS UNFIT.		PRESENT CONDITION.						TOTALS
	Before 1914	During 1914	Fit and fairly Fit	Demolished.		Unfit.			
				Voluntarily	By Order	Let	Void		
ASHLEY	...	5	...	5	...	...	...	5
BEDMINSTER	...	119	70	3	...	46	20	139	
BRISTOL CENTRAL	...	147	71	12	5	71	75	234	
CLIFTON	...	45	36	1	...	21	49	107	
ST. GEORGE	...	46	46	8	...	23	26	103	
ST. PHILIP	...	78	88	6	12	43	50	*201	
STAPLETON	1	6	7	
WESTBURY-ON-TRYM	...	5	...	...	...	5	1	6
TOTALS	...	508	311	35	17	210	*229	802	

* Includes two houses twice represented.

List of Closing Orders made during 1914.

BEDMINSTER.

	Situation.	Rent	Date of C.O.	Remarks
1	Regent Road	... 3/-	7th July	
2	"	... 3/-	"	
1	Farley Square	... 3/6	21st July	
2	"	... 3/6	"	
3	"	... 3/6	"	
4	"	... 3/6	"	
5	"	... 3/6	"	
9	"	... 3/6	"	
7	"	... 3/6	"	
8	"	... 3/6	"	
9	"	... 3/6	"	
10	"	... 3/6	"	
3	Fletcher's Buildings	... 3/-	"	
4	" "	... 3/-	"	
5	" "	... 3/-	"	

Total number of houses closed in above district, 15

BRISTOL CENTRAL.

1	Ship Court	... 4/6	3rd Feb.
2	"	... 4/6	"
3	"	... 4/6	"
4	"	... 4/6	"
5	"	... 3/6	"
6	"	... 4/6	"
13	St. Michael's Build'gs	6/-	3rd Nov.
14	" "	6/-	"
20	Paul Street	... 6/-	"
2	Little Avon Street	... 5/6	7th Dec.
3	" "	... 5/6	"
4	" "	... 5/-	"
5	" "	... 4/6	"
6	" "	... 4/6	"
7	" "	... 4/6	"

Total No. of houses closed in above district ... 15

CLIFTON.

	Situation.	Rent.	Date of C.O.	Remarks
1	Lower Whittaker's Buildings	4/-	7th Dec.	
2	" "	3/6	"	
3	" "	3/6	"	
4	" "	3/6	"	
5	" "	3/-	"	
6	" "	2/6	"	
7	" "	2/6	"	
8	" "	2/6	"	
9	" "	2/-	"	

Total number of houses closed in above district, 9

ST. GEORGE.

1	Aiken Court	...	2/9	29th April
2	"	...	2/9	"
3	"	...	2/9	"
4	"	...	2/9	"
120	Blackswarth Road	...	4/-	16th June
122	"	...	3/6	"
124	"	...	4/-	"
126	"	...	3/6	"
128	"	...	4/-	"
1	Tichborne Street	...	4/6	21st July
3	"	...	4/6	"
5	"	...	4/6	"
2	Cottages in Gordon Rd.	?		7th Dec.

Total number of houses closed in above district, 14

ST. PHILIP.

1	Allen's Court	...	3/-	24th April
2	"	...	3/-	"
3	"	...	3/-	"
4	"	...	3/-	"
5	"	...	3/-	"
6	"	...	3/-	"
7	"	...	3/-	"
8	"	...	3/-	"

ST. PHILIP—(*continued*).

Situation.		Rent.	Date of C.O.	Remarks
18	Eugene Street	... 3/-	24th April	
1	Little Phoenix Street	.. 3/6	16th June	
2	„ „	... 3/6	„	
3	„ „	... 3/6	„	
4	„ „	... 3/6	„	
5	„ „	... 3/6	„	
6	„ „	... 3/6	„	
7	„ „	... 3/6	„	
8	„ „	... 3/6	„	
9	„ „	.. 3/6	„	
10	„ „	... 3/6	„	
8	Campbell Terrace	... 4/-	„	
9	„	... 4/-	„	
10	„	... 4/-	„	
11	„	... 4/-	„	
1	King William Court	... 3/-	7th July	Order deter- mined
2	„ „	... 3/-	„	„
3	„ „	... 3/-	„	„
4	„ „	... 3/-	„	„
2	Butter Alley	... 3/-	„	
3	„	... 3/6	„	
13	Wade Street	... 7/-	7th Dec.	
Total number of houses closed in above district				30

STAPLETON.

1	Bawn's Cottages	... 5/-	7th July
2	„	... 4/6	„
3	„	... 4/6	„
4	„	... 4/6	„
5	„	... 4/6	„

Total number of houses closed in above district, 5

MORTUARIES.

Quaker's Friars, off Merchant Street, *post mortem* Examination Room and Coroner's Court adjoining.

In addition to the above, there are Mortuaries for Police purposes at Bedminster and Redland Police Stations, and a Mortuary at Avonmouth

MUNICIPAL LODGING HOUSE.

This Lodging House was opened on April 20th, 1905, with 60 beds, and continued with this number until the 17th September, 1905; the average number of lodgers per night during that period was 42. On the 17th September, 1905, the number of beds were increased to 120, and the average nightly occupations from that date to 25th March, 1906, was 74.

CITY AND COUNTY OF BRISTOL.

MUNICIPAL LODGING HOUSE.

City Accountant's Report and Financial Statement.

TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.

Gentlemen,

In submitting to you the Financial Statement of the Municipal Lodging House for the year ended 25th March, 1915, I beg to report as follows, viz:—

The total number of nightly occupations from 26th March, 1914, to 25th March, 1915, was 41,759, or an average of 114 lodgers per night during the year, the total number of beds available being 120.

For the year ended 25th March, 1914, the total number of nightly occupations was 41,416, or an average of 113 lodgers per night during the year. This is an increase of 343 nightly occupations, or an increase on the average of one lodger per night.

There has been an increase in the working expenses as compared with the previous year, of £143 3s. 6d. This is owing to a general increase in most of the items, and also additional expenditure in respect of Telephone and testing right of light in the erection of scaffolding and screen in view of the proposed extension.

The net Surplus on the working expenses for the year ended 25th March, 1915, was £87 15s. 5d., as compared with a net surplus of £233 12s. 11d. in the previous year.

The total amount chargeable on the rates for the year 1914-1915 in respect of Interest and Repayment of Loans, after taking into account the surplus of £87 15s. 5d. on the working expenses, was £398 16s. 3d., as compared with £240 19s. 2d. for the year ended 25th March, 1914.

For the information of the Committee I append herewith the average amount received per night per occupation and the average cost, viz:—

<u>Year</u>		<u>Year</u>
1913-14.		1914-15.
d.		d.
5·68	Average amount received per nightly occupation	5·61
4·33	Average cost per nightly occupation (maintenance only)	5·11
6·39	Do. (maintenance and interest on loans)	7·22
7·08	Do. (maintenance, interest on loan, and contribution to Sinking Fund)	7·91

I am, Gentlemen,

Your obedient Servant,

J. CROMPTON,

City Accountant.

City Accountant's Office,

51, Prince Street,

29th May, 1915.

Municipal Lodging House.

EXPENDITURE.

Year. 1913-14				Year. 1914-15
£ s. d.				£ s. d.
450 0 8	Wages .. .. .	..	..	470 13 9
66 5 1	Rates, Taxes and Fire Insurance	..	..	71 9 7
7 3 6	Workmen's Compensation and National Health Insurance	..	..	7 17 1
25 12 9	Electric Light .. .. .	..	..	29 8 10
1 14 3	Gas .. .. .	..	..	1 19 1
37 5 9	Water .. .. .	..	..	41 2 9
— — —	Telephone .. .. .	..	..	5 16 9
43 3 5	Fuel .. .. .	..	..	54 17 4
66 2 6	Washing and Cleaning Materials	..	..	65 14 4
13 10 0	Cleaning Windows .. .. .	..	..	16 10 0
6 17 8	Printing, Stationery and Advertising	..	..	8 7 4
10 10	Painting and General Repairs, etc.	..	..	50 13 7
10 8 9	Fittings, Lamps, Repairs, etc. ..	..	..	19 6 5
8 4 6	Linen .. .. .	..	..	13 9 3
5 0 7	Crockery .. .. .	..	..	5 3 5
5 0 2	Sundries .. .. .	..	..	5 11 10
— — —	Erecting and taking down scaffolding & screen			22 2 7
747 0 5				890 3 11
	LESS INCOME.			
£ s. d.				£ s. d.
974 6 6	Cubicles .. .. .	..	..	973 8 0
1 9 11	Baths .. .. .	..	..	1 13 11
1 11 5	Parcels .. .. .	..	..	1 13 8
1 0 6	Fines .. .. .	..	..	18 9
980 8 4				977 14 4
980 13 4	Rent .. .. .	..	..	5 0
233 12 11				977 19 4
				87 15 5
	<i>Surplus on Ordinary Working :</i>			
355 10 3	Interest on Loans	367 9 10		
	Contribution to Sink-			
	ing Fund for Re-			
119 1 10	demption of Debt	119 1 10		
474 12 1				486 11 8
£240 19 2	Total amount charged to General District			£398 16 3

Baths and Wash-houses.—1914-1915.

The following figures are returned for the Year's work :—

Year ending 25th March, 1915.	No of Bathers. Swimming Baths.	Private Baths.	Women Washing Clothes.
" Victoria," Clifton (Baths only)	18,675	3,847	...
" Royal " Kingsdown (Baths only)	40,310	...	...
Broad Weir	33,383	27,763	14,512
Mayor's Paddock, New Cut	37,694	28,888	17,326
Jacob's Wells (Baths only)	52,966	24,824	...
Rennison's (Swimming Bath only)	9,383	...	...
Barton Hill	73,526	31,835	...
Eastville Park (Swimming Bath only)	17,737	...	...
Victoria Park (Swimming Bath only)	12,082	...	...
Greville Park (Swimming Bath only)	10,420	...	...
Total ...	306,176	117,157	31,838

1913-14	268,424	109,092	31,144
1914-15	306,176	117,157	31,838
	+ 37,752	+ 8,065	+ 694

(Up to March 25th, 1915.)

Particulars supplied by Mr. J. KANE.

GENERAL AND VITAL STATISTICS.

Population.

	Area in Acres.	Population (Estimated)	Rateable Value.
City of Bristol, 1897	4,661	232,242	£1,153,311
Additions of 1897	6,756	85,800	£246,815
Additions of 1904	5,347	13,443	£69,560
City of Bristol, 1914	17,460	363,312	£1,865,938 10s. od.

This table shows that the City covers not quite four times the acreage which it covered in 1897, and is more populous by 131,070 persons. The City Medical Officer of Health has inherited the duties and responsibilities of the Medical Officers of Health of this added City; considerable economy has thus been effected in the medical administration, as the salaries of the various medical officers have lapsed.

There is no salaried Assistant Medical Officer to help in either City or Port work, but the occasional Medical assistance required in emergency, is paid for by fees for work done. The various extensions have resulted in the displacement of five part-time Medical Officers of Health, whose districts have been absorbed.

The districts included three Local Board Districts, each in charge of a part-time Medical Officer of Health, and parts of two Rural areas.

The additional work thus devolving on the Medical Officer of Health, includes :—

Additions to City Work.

CITY.—In 1897 the area of the City was increased by 6,756 acres, and the population by 85,800 persons.

In 1904 the area was further increased by an addition of 5,347 acres, and the population by 13,443.

In addition, the National Insurance Act of 1911 doubles the existing responsibility of the Medical Officer of Health.

Additions to Port Work.

PORT.—In 1897 responsibility for the Gloucester Port work, under the Cholera, Plague and Yellow Fever Regulations, was imposed by special order upon the Bristol Port Medical Officer of Health.

In 1907 the Public Health (Regulations as to Food) Act imposed all responsibility for the inspection of Imported Food for the whole Port of Bristol upon the Port Medical Officer of Health. This had hitherto been carried out only in Ports under a whole-time Port Medical Officer of Health.

Births.

The births registered in Bristol in 1914 were 7,783, of which 291 were returned as illegitimate, a percentage of 3·7. The birth rate for the year was 21·4, compared with a rate of 22·4 for last year. The rate since 1882 has shown an almost continuous decrease (Table B). The rate for the 97 great towns in 1914 is 24·8.

The excess of births over deaths during the year 1914 (*natural increase of population*) is 2,768.

Marriages.

3,138 marriages took place within the Borough of Bristol during 1914, compared with 2,953 in the year 1913, and 2,933 in the year 1912. The annual marriage rate per 1000 is thus 8·6, compared with 8·1 for the years 1913, 1912 and 1911.

Deaths.

5,015 deaths were registered in the district during the 52 weeks ending the 2nd January, 1915, of which 79, or 1·5 per cent. were returned as deaths of illegitimate children. The recorded general death rate for the year, uncorrected for age and sex distribution is 13·80 per

1,000 living, compared with a rate of 13·01 for the year 1913. The death rate recorded for the 97 great towns in 1914 is 13·1.

Infant Mortality.

Of the 5,015 deaths, 789 were of infants under one year. The proportion of these deaths to every 1000 births (infant mortality) gives a rate of 101·3, compared with a rate of 97·5 for the year 1913, 102·7 for the year 1912, 142·8 for the year 1911, 90·3 for the year 1910, 101·0 for the year 1909, 125·8 for the year 1908, 100·9 for the year 1907, 127·6 for the year 1906, 122·4 for the year 1905, and 133·7 for 1904. The rate recorded in the 97 great towns in 1914 is 113.

The Infant Mortality rate varied thus :—

St. Philip	...	...	...	118·5
Bristol Central	...	...	...	117·0
Bedminster	...	..	...	107·7
St. George	...	..	...	106·3
Clifton	...	...	...	90·9
Stapleton	...	..	...	89·5
Knowle	...	...	...	62·9
Ashley	...	...	...	60·1
Westbury-on-Trym	...	...	...	48·1

In Table B will be seen the annual infant mortality rates in Bristol for the past 25 years.

The highest rates were recorded in St. Philip, Bristol, Central (Castle Precincts, St. Mary Redcliffe, St. Paul, St. James, St. Augustine), Bedminster and St. George.

The Health Committee has appointed two Health Visitors, and the Notification of Births Act was adopted on 12th December, 1912. Both Health Visitors are fully trained and certified nurses, and hold the Certificate of the Central Midwives' Board.

* * * The Health Visitors are to be increased in 1915 to seven.

Seven Chief Epidemic Diseases.

(Zymotics.)

The rate of mortality for the Seven Chief Epidemic Diseases, viz.: Small-pox, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Fever (Typhus, Enteric Fever, and Simple Continued Fever or Pyrexia), and Diarrhœa, was in 1914, 0·99 per 1,000 living, compared with a rate of 0·84 in 1913, 0·99 in 1912, 2·2 in 1911, 0·6 in 1910, 0·9 in 1909, 1·2 in 1908, 0·8 in 1907, 1·6 in 1906, 1905 and 1904, and 1·1 in 1903.

Mortality at Ages between 5 and 65.

2,194 deaths were returned at these ages.

Mortality amongst Aged People.

1,658 deaths of persons aged 65 and upwards were registered, whose ages averaged 75 years and 7 months.

PREVALENCE OF SICKNESS IN 1914.

Small-pox.

The prevalence and fatality of this disease is here shown for the past twenty-nine years :—

Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1886	?	?	8	3	?
1887	163	72	13	5	7·9
1888	224	98	26	11	11·6
1889	0	—	0	—	—
1890*	0	—	0	—	—
1891	16	7	1	0·4	6·2
1892	0	—	0	—	—
1893	165	73	20	8	12·1
1894	201	88	16	7	7·9
1895	4	1	0	—	—
1896	42	18	5	2	11·9
1897	10	4	1	0·4	10
1898†	2	0·6	0	—	—
1899	0	—	0	—	—
1900	0	—	0	—	—
1901	1	0·3	0	—	—
1902	4	1	2	0·6	50
1903	46	14	3	0·8	6·5
1904‡	34	9	1	0·2	2·9
1905	13	3	0	—	—
1906	32	8	0	—	—
1907	6§	1·6	1	0·2	16·6
1908	1	0·2	0	—	—
1909	39††	10	9	2	23·0
1910	4**	1	0	—	—
1911	0	—	0	—	—
1912	62†*	17	3	0·8	4·8
1913	0	—	0	—	—
1914	0	—	0	—	—

* Compulsory Notification began. † City Extended.

‡ City again Extended in 1904. § Including one Port case.

†† This total of 39 includes 35 cases in the City actually notified, (one being an officer of the Cossham Hospital who lived in the County, but formed one of the Cossham group): and there were three abortive cases, and one unrecognised case in the East Bedminster group which were not notified. The unrecognised first case in the Cossham outbreak admitted from the Chipping Sodbury Rural District to Cossham Hospital is not included amongst the City cases.

** Including two Port Cases.

No case of Smallpox was notified during 1914.

VACCINATION.

The 1913 returns are the last complete ones available. I am indebted to the Clerk of the Bristol Union for the following information :—

	BRISTOL UNION.
VACCINATION.	
Number successfully vaccinated up to 31st January, 1915 ...	2,379
Insusceptible	3
Died unvaccinated	655
Postponed by Medical Certificate Certificates of Conscientious Ob- jection	67
Removed to Districts, the Vac- cination officer of which has been duly apprised	2,374
Cases left and not traceable ...	192
In abeyance	1,051
	1,415
Births registered in 1913 ..	8,136
*Percentage of successful vaccina- tion to births	29

*A special return of Certificates of successful primary vaccinations at all ages, received in each of the calendar years since 1900, was furnished at the request of the Local Government Board, and showed as follows :—Certificates received in 1900, 5,917; in 1901, 5,776; in 1902, 6,898; in 1903, 6,972; in 1904, 7,413; in 1905, 7,253; in 1906, 6870; in 1907, 6,464; in 1908, 5,092; in 1909, 5,377; in 1910, 4,367; in 1911, 3,443; in 1912, 3,285; in 1913, 3,940; and in 1914, 2,267.

SCARLET FEVER

	1	2	3	4	5
Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living.	Case Mortality per cent.
1890	559 [†]	253	40	18	7·1
1891	888	400	37	17	4·1
1892	1,442	644	47	21	3·2
1893	1,245	553	35	16	2·8
1894	485	214	16	7	3·2
1895	562	252	16	7	2·8
1896	1,352	586	59	24	4·3
1897	511	220	18	7	3·5
1898*	382	120	14	4	3·6
1899	697	217	13	4	1·8
1900	1,971	606	39	12	1·9
1901	2,206	670	36	10	1·6
1902	2,724	793	66	19	2·4
1903	2,168	639	49	14	2·2
1904||	1,258	366	36	10	2·8
1905	1,085	302	39	10	3·5
1906	1,019	280	27	7	2·6
1907	886	240	26	7	2·6
1908	486	127	10	2	2·0
1909	692	183	12	3	1·7
1910	1,216	317	12	3	0·9
1911	953	266	16	4	1·6
1912	580	161	12	3	2·0
1913	1,738	471	6	1	0·3
1914	2,281	611	22	6	0·9

*City Extended, || The City was further Extended in 1904.

† Notification commenced on February 12th, 1890, so that the case mortality for this year is probably overstated.

SCARLET FEVER AND SCARLATINA.

During the year 1914, 2,211 cases of Scarlet Fever were notified, and 22 deaths occurred, giving a case mortality of 0.9 per cent.

The prevalence of, and fatality from, this disease for the past twenty-five years, that is to say, since notification commenced, is shown here. Columns 2 and 4 should be used in comparing different years, as they are adjusted for the varying populations.

The attack rate is the highest recorded since 1903.

The distribution of attacks by age is shown below :—

0-1	1-5	5-15	15-25	25+	Total
15	367	1,467	280	82	2,211

The distribution of the disease in each quarter of the year is shown in the following table for each Registration Sub-district of the City:—

SCARLET FEVER.

REGISTRATION Sub-District.	CASES NOTIFIED.				Year 1914	Attack Rate per 100,000 Living
	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.		
Ashley	123	55	14	56	248	502
Bedminster .. .	212	119	105	184	620	989
Bristol Central	57	38	34	23	152	422
Clifton .. .	55	46	29	61	191	464
Knowle .. .	42	8	24	34	108	474
St. George	145	70	49	84	348	578
St. Philip	101	51	48	70	270	541
Stapleton	96	24	17	34	171	613
Westbury-on-Trym ..	9	6	10	39	64	469
Public Institutions ..	16	9	1	7	33	—
Not belonging to City ..	3	1	—	2	6	—
Total ..	859	427	331	594	2211	611

The attack rate per 100,000 population was lowest in Bristol Central and Clifton, and highest in Bedminster and Stapleton.

Isolation in Scarlet Fever at a public Hospital is not needed for the children of persons in good circumstances, who will, indeed, do as well or better at home, but Hospitals have their use in securing isolation in cases which cannot possibly receive adequate attention at home

Enteric Fever (Typhoid Fever).

During the year 1914, 98 cases of Enteric Fever were notified, and nine deaths occurred, giving a case mortality of 9·1 per cent.

The prevalence and fatality from this disease for twenty-five years past is here shown :—

ENTERIC FEVER.

	1	2	3	4	5
Years.	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100 000 Living	Case Mortality per cent.
1890 ^{*2}	122	55	33	14	27·0
1891	116	52	23	10	19·6
1892	135	60	18	8	13·3
1893	122	54	26	11	21·3
1894	90	39	21	10	23·3
1895	89	59	22	9	24·7
1896	110	47	20	8	18·1
1897	343	147†	47	20	17·4
1898*	113	35	26	8	23
1899	219	68	35	10	16
1900	293	90	44	13	15
1901	281	85	40	12	14
1902	319	93	58	17	18
1903	134	39	21	6	15
1904†	172	50	26	7	15
1905	76	21	13	3	17
1906	120	33	21	5	17
1907	74	20	15	4	20
1908	103	27	10	2	9
1909	66	17	12	3	18
1910	85	22	9	2	10
1911 ^{*3}	148	41	18	5	12
1912	79	21	7	1	8
1913	64	17	5	1	7
1914	98	27	9	2	9

* Extended City. † Milk Outbreak introduced from the County.

^{*2} Notification commenced February 12, 1890, so that the case mortality for this year is probably overstated.

† City again extended in 1904. ^{*3} Localised Outbreak in St. James.

No estimate can be made as to the number of cases occurring before 1890, the high figures of 1897 are due to the introduced milk outbreak of that year. In 1897 the City, containing 232,242 people, was extended, and in 1904 contained 343,204 persons, an increase of 110,962 persons. In 1904 a further extension was made. Allowance in columns two and four is made for the increase of population year by year, and the figures in these columns should be used for comparison. The attack rate fell very considerably in 1903 and 1904 from the high rate of 1902, and the death-rates (column four) for the years 1903 and 1904 were the lowest recorded up to then.

In 1908 the attack rate rose slightly compared with that of 1907, but the number of deaths, the death-rate and the case mortality per cent., are the lowest then recorded.

In 1909 the attack rate was the lowest recorded since Notification began in 1890, but the number of deaths and the death-rate rose slightly compared with 1908. The rise in case mortality to 18 per cent. suggests that the type of infection was more severe than in 1908.

In 1910 the attack rate was higher than 1909, but was lower than in any year except 1909, 1907 and 1905. The death-rate was, however, the lowest rate recorded, and the case mortality per cent. was the lowest recorded with the exception of the year 1908.

In 1911 the attack rate was the highest recorded since 1904, owing to a localised contact-outbreak in St. James, of which a full account appeared in my Report for that year, the death-rate was the highest recorded since 1906. The case mortality per cent. was the lowest recorded, with the exception of the years 1908 and 1910.

In 1912 the attack rate was the lowest rate recorded since Notification began, except the rate for the year 1909. The death rate and the case mortality rate were the lowest recorded.

In 1913 the attack rate was the same as the rate recorded for the year 1909, which was the lowest rate recorded since notification began in 1890. The death-rate and the case mortality rate were, however, the lowest recorded in any year.

The distribution of the disease in each quarter of the year is shown in the following table for each Registration Sub-district of the City. The Sub-districts most affected are seen to be Bristol Central and St. Philip.

REGISTRATION. Sub-District.	CASES NOTIFIED.				Year 1914.	Attack Rate per 100,000 Living.
	1st Qr.	2nd Qr.	3rd Qr.	4th Qr		
Ashley	3	2	1	4	10	20
Bedminster	—	1	—	2	3	4
Bristol Central	6	28	1	—	35	97
Clifton	2	1	2	1	6	14
Knowle	—	—	—	1	1	4
St. George... ..	1	—	2	2	5	8
St. Philip	6	8	1	—	15	30
Stapleton	—	1	—	1	2	7
Westbury-on-'Trym	2	—	1	—	3	22
Municipal Institutions	3	—	—	4	7	—
Not belonging to City	—	—	2	9	11	—
Total ..	23	41	10	24	98	27

Enteric Fever is admitted for treatment into the Public Institutions, and eighty-nine cases (eleven from outside the City) were nursed in the Royal Infirmary, General Hospital, Ham Green Hospital, Children's Hospital, Cossham Hospital, and Stapleton Workhouse, through the year. With the exception of twelve cases nursed at Clift House in 1897, no provision had been made for this disease in the City Hospitals before July, 1899, and cases, if not admitted to the general Hospitals, had to remain at home.

DIPHTHERIA (including Membranous Croup).

During the 52 weeks of 1914, 633 cases and 39 deaths were notified as Diphtheria, giving a death-rate of 0·10 per 1,000 population.

The Diphtheria rate (including Membranous Croup) for the 97 great towns in 1914 was 0·16.

The 39 deaths returned as due to Diphtheria gave a case mortality of 6·1 per cent. The case mortality observed in 1894 was 39 per cent.; much of this difference is apparent only as large numbers of very mild cases, which in 1894 would have escaped observation, are sought for now by systematic bacteriological examination; this causes the figures as to case-mortality to be somewhat misleading.

The 39 deaths from Diphtheria and Membranous Croup correspond to a death-rate from these causes of 10 per 100,000 living, and compares with a rate of 8 in 1913, 13 in 1912, 11 in 1911, 6 in 1910, 14 in 1909, 18 in 1908 and 1907, 22 in 1906, 16 in 1905, 30 in 1904, 35 in 1903, and of 54 in 1902.

The rate of attack, 174, is the lowest recorded since 1900, with the exception of the rate 145 for the year 1910, and 163 for the year 1911.

TABLE I.

Diphtheria (including Membranous Croup for 25 years.)

	1	2	3	4	5
Year.	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent
1890||	56	25	16	7	28·5
1891	70	31	16	7	22·8
1892	106	47	38	16	35·8
1893	141	59	53	23	37·5
1894	128	56	50	22	39·0
1895	165	69	34	14	20·6
1896	258	111	38	16	14·7
1897	205	88	36	15	24·7
1898*	217	68	44	13	20·2
1899	215	67	33	10	15·3
1900	512	157	103	31	21·1
1901	908	275	124	37	13·6
1902	1,109	325	189	54	17·0
1903	1,134	331	119	35	10·4
1904	1,051	305	105	10	9·9
1905	1,021	284	59	16	5·7
1906	839	231	82	22	9·7
1907	926	251	68	18	7·3
1908	924	243	69	18	7·4
1909	712	188	55	14	7·7
1910	556	145	38	9	6·8
1911	584	163	42	11	7·1
1912	643	178	48	13	7·4
1913	762	206	33	8	4·3
1914	633	174	39	10	6·1

|| Notification commenced February 12th, 1890.

* Enlarged City.

† City again Extended in 1904.

TABLE II.

DIPHTHERIA.

TABLE SHOWING TOTAL CASES NOTIFIED, AND DEATHS DURING THE YEAR 1914.

CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY												
At all Ages.		At Ages—Years.					Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Public Institution	Not Belonging to Borough	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45												45 to 65	65 and upwards
CASES, 1914	1st QUARTER 146	3	40	84	9	10	—	13	33	9	10	9	30	14	14	6	6	2
	2nd QUARTER 80	4	22	44	6	3	1	4	16	8	13	5	7	11	7	2	6	1
	3rd QUARTER 139	3	31	75	21	7	2	12	32	13	11	20	14	8	7	10	5	7
	4th QUARTER 268	5	36	182	25	18	2	24	38	17	17	52	34	16	36	27	4	3
	Total 633	15	129	385	61	38	5	53	119	47	51	86	85	49	64	45	21	13
DEATHS, 1914	1st QUARTER 6	3	2	1	—	—	—	—	—	2	—	—	—	4	—	—	—	—
	2nd QUARTER 6	1	2	2	1	—	—	1	2	—	—	—	2	—	1	—	—	—
	3rd QUARTER 8	2	3	3	—	—	—	—	1	1	1	1	2	—	—	—	—	2
	4th QUARTER 19	2	6	10	—	—	1	1	2	1	1	4	5	—	1	2	—	2
	Total 39	8	13	16	1	—	1	2	5	4	2	5	9	4	2	2	—	4

TABLE III.

**Diphtheria—Showing incidence of Cases and Deaths
in the Sub-Districts of Bristol, 1914.**

Incidence Rate per 100,000 Population.	Cases.	REGISTRATION SUB-DISTRICT. POPULATION. (Estimated 1914.)	Deaths.	Death Rate per 100,000 Population.
107	53	Ashley 49,323	2	4
189	119	Bedminster 62,643	5	8
130	47	Bristol Central 35,968	4	11
124	51	Clifton 41,071	2	4
377	86	Knowle 22,765	5	21
141	85	St. George 60,165	9	14
98	49	St. Philip 49,864	4	8
229	64	Stapleton 27,869	2	7
329	45	Westbury-on-Trym 13,644	2	14
—	21	Arising in Municipal Institutions	—	—
—	13	Not belonging to Boro'	4	—
174	633	City 363,312	39	10

TABLE IV.

**Diphtheria—Notifications in each Quarter in the
Sub-Districts of Bristol, 1914.**

	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Year.
Ashley	13	4	12	24	53
Bedminster	33	16	32	38	119
Bristol Central	9	8	13	17	47
Clifton	10	13	11	17	51
Knowle	9	5	20	52	86
St. George	30	7	14	34	85
St. Philip	14	11	8	16	49
Stapleton	14	7	7	36	64
Westbury-on-Trym	6	2	10	27	45
Arising in Municipal Institutions	6	6	5	4	21
Not belonging to Boro'	2	1	7	3	13
CITY	146	80	139	268	633

TABLE V.

DIPHTHERIA.

Cases Removed to Hospital during the Year 1914.

	Ashley.	Bed- minster.	Bristol Central.	Clifton.	Knowle.	St. George.	St. Philip.	Staple- ton.	West- bury-on- Trym.	Public Insti- tutions.	Not be- longing to Borough
1st Quarter	8	23	5	8	4	20	10	6	4	6	2
2nd "	3	12	7	10	4	7	9	5	3	6	1
3rd "	5	25	11	9	19	10	6	5	7	2	6
4th "	13	24	13	12	42	22	13	26	17	4	3
Totals	29	84	36	39	69	59	38	42	31	18	12

Total Number of Cases Removed ... 456

TABLE VI.

**Laboratory Examinations in Diphtheria and
Enteric Fever.**

	Diphtheria	Enteric Fever	Total
1895	87	—	87
1896	206	—	206
1897*	379	254	633
1898	390	127	517
1899	485	290	775
1900	915	452	1,367
1901	2,527	425	2,952
1902	3,771	420	4,191
1903	5,545	240	5,785
1904	6,858	308	7,166
1905	6,469	161	6,630
1906‡	4,738	219	4,957
1907	6,549	166	6,715
1908	5,003	172	5,175
1909	4,118	138	4,256
1910	3,113	172	3,285
1911	3,081	373	3,454
1912	3,968	184	4,152
1913	5,648	142	5,790
1914	5,725	165	5,890

* City Enlarged in November, 1897.

‡ City Enlarged in October, 1904.

Laboratory Examinations.

In November, 1902, this work, which had for eight years been voluntarily undertaken by the Medical Officer of Health, was transferred to University College, Bristol, and in 1906 was transferred to the City Analyst.

Of the 5,890 bacteriological examinations made during 1914, 3,534 were of suspected cases of Diphtheria, of which a positive result was obtained in 731; 1,020 showed suspicious organisms, and 1,783 gave a negative result; 2,191 control examinations to determine recovery, of which a positive result was obtained in 864; 574 showed suspicious organisms, and 753 gave a negative result; and 165 were of suspected cases of Enteric Fever, of which a positive result was obtained in 53.

Diphtheria Antitoxin.

The Health Committee during the year have supplied 350,000 units of Diphtheria antitoxin free to Medical Practitioners upon application, for 56 patients whose parents were certified as unable to afford to pay for this.

Cholera—Choleraic Diarrhœa—Plague.

No suspicious cases were introduced.

Diarrhœa—Infantile Diarrhœa.

(UNDER TWO YEARS).

The number of deaths returned as due to Diarrhœal diseases during the year was 135, compared with 166, 66, 365, 64, 112, 148, 125, 210, 154, and 196 fatal cases recorded in the previous ten years. These deaths give a Diarrhœa death-rate of 0·37 per 1,000 living compared with 0·45 in 1913, 1·13 in 1911 and 0·19 in 1910.

The remarkable increase in deaths from Diarrhœa in 1911 was a result of the abnormal heat of the summer and autumn in that year.

CITY OF BRISTOL.

**Table showing Deaths from Diarrhœa during the
Third Quarters of the Years 1908-1914.**

Registration Sub-District	1908	1909	1910	1911	1912	1913	1914
Ashley	5	2	1	23	—	4	3
Bedminster	25	17	11	55	4	20	8
Bristol Central	13	9	2	30	3	13	12
Clifton	1	2	5	22	3	5	5
Knowle	4	1	—	15	2	3	3
St. George	32	15	10	75	4	21	21
St. Philip	29	27	5	84	6	27	13
Stapleton	6	2	2	24	—	—	4
Westbury-on-Trym	—	1	—	9	—	2	—
TOTALS	115	76	36	337	22	95	69

CITY OF BRISTOL.

Table showing Diarrhœal Mortality by weeks during the 3rd Quarters of the Years 1908-1914.

Mean Temperature, 3rd Quarter.		YEAR.	WEEKS OF YEAR.													3rd Quarter.	Rate per 1000 Popula- tion.
			July.				August.						September.				
			27th	28th	29th	30th	31st	32nd	33rd	34th	35th	36th	37th	38th	39th		
60.6	1908	2	1	—	—	1	5	12	24	20	25	14	6	7	117	0.80	
59.6	1909	1	2	1	3	1	5	7	7	12	16	9	3	9	76	0.80	
59.0	1910	1	—	—	2	—	1	3	2	4	6	6	5	6	36	0.37	
69.4	1911	—	2	—	5	15	20	51	63	60	49	36	26	13	340	3.80	
58.2	1912	1	3	2	1	3	4	1	2	2	2	2	4	—	27	0.30	
61.2	1913	—	1	1	1	8	4	12	15	9	15	15	8	10	99	1.09	
60.9	1914	—	—	—	1	—	3	5	2	6	8	24	12	9	70	0.77	

Erysipelas.

During the year 1914, 311 cases of Erysipelas were notified, and 23 deaths were returned, compared with 227 cases and 5 deaths in 1913.

Puerperal Fever.

Twenty-three cases of Puerperal Fever were notified. Eleven cases proved fatal, compared with 23 in 1900, 17 in 1901, 17 in 1902, 14 in 1903, 16 in 1904, 6 in 1905, 14 in 1906, 11 in 1907, 7 in 1908, 17 in 1909, 14 in 1910, 10 in 1911, 15 in 1912, and 23 in 1913.

Typhus Fever.

No case of Typhus fever was notified in the City during the year. This disease disappeared when Registration of Common Lodging Houses and control of gross insanitary conditions were taken in hand in the sixties and seventies of last century. The demonstration that this disease may be inoculated by the body-louse is suggestive in this connection.

Measles.

The deaths from Measles in the City in 1914 numbered 92, compared with 49 in 1913, 153 in 1912, 164 in 1911, 32 in 1910, 90 in 1909, 96 in 1908, 36 in 1907, 140 in 1906, 180 in 1905, 94 in 1904, 11 in 1903, 411 in 1902, 7 in 1901, with 200 in 1900, and 38 in 1899. These fluctuations are characteristic of Measles prevalence in large centres of population.

Of the 92 deaths, 83 occurred in children under 5; 9 between the ages of 5 and 15, and 1 between the ages of 15 and 25.

In the first quarter of the year 54 deaths occurred, 36 in the second, 2 in the third, and none in the fourth quarter.

The relative fatality for a period of ten years in the City of Bristol from various diseases is here shown, and Measles is found to occupy a most prominent place amongst the causes of mortality.

1905-1914 Deaths			
Diarrhœa	...	...	1535
Measles	...	...	1032
Whooping Cough	...	...	841
Diphtheria	...	...	533
Scarlet Fever	...	...	182
Enteric Fever	...	...	119
Small Pox	...	...	12
Typhus Fever	...	...	0

Whooping Cough.

The deaths from Whooping Cough in the City numbered 67, compared with 53 in 1913, 69 in 1912, 142 in 1911, 66 in 1910, 56 in 1909, 128 in 1908, 35 in 1907, 102 in 1906, 123 in 1905, 110 in 1904, 65 in 1903, 105 in 1902, 189 in 1901, and 54 in 1900.

Twenty-eight of the deaths occurred in children under one, 36 at the ages of one to five, and three at ages five to fifteen.

In the first quarter of the year 11 deaths occurred, 12 in the second, 5 in the third, and 39 in the last quarter of the year.

The mortality of this disease is largely due, as in the case of Measles, to the want of care exercised during the course of the illness, in avoiding exposure to inclement weather. It bears a similar relation to school attendance as in the case of Measles, and is very fatal at ages under five.

Influenza.

This disease was credited with 44 deaths during 1914, compared with 57 in 1913, 49 in 1912, 27 in 1911, 43 in 1910, 27 in 1909, 73 in 1908, 55 in 1907, 47 in 1906, 54 in 1905, 27 in 1904, 33 in 1903, 56 in 1902, 65 in 1901 and 53 in 1900.

19 deaths occurred in the first, 9 in the second, 3 in the third, and 13 in the fourth quarter of the year.

VENEREAL DISEASES.

Measures for the control and supervision of these diseases by co-operation between the Public Health Department and the Special Departments of the Local Hospitals have been for some time under consideration. Possibly a clinic or clinics may be established at one or more of the Hospitals, the work being centralised at the Health Offices.

CEREBRO-SPINAL FEVER AND ANTERIOR POLIO-MYELITIS.

1914.

These diseases were made compulsorily notifiable under an Order of the Local Government Board, dated 15th August, 1912. Notification was previously adopted by the Bristol City Council—first for six months only, in October, 1911; and, secondly, in March, 1912, as a permanent measure. The Local Government Board Order of 1912, superseded the local option.

Cerebo-Spinal Fever.

During the year 32 cases of Cerebro-Spinal Fever were notified.

The distribution of the disease in each quarter is shown in the following table for each Registration Sub-District in the City:—

Registration Sub-District.	CASES NOTIFIED				Year 1914	Attack rate per 100,000 Living
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter		
Ashley ...	2	1	...	...	3	6
Bedminster ...	11	...	...	...	11	17
Bristol Central...	2	...	2	1	5	13
Clifton ...	2	...	...	..	2	4
Knowle ...	...	...	...	2	2	2
St. George ...	1	...	...	...	1	1
St. Philip ...	5	2	...	...	7	14
Stapleton ...	...	...	...	...	...	...
Westbury-on-Trym.	1	...	...	...	1	7
Total ...	24	3	2	3	32	8.9

Of the 32 cases reported, 21 proved fatal.

The first suspicion of this disease becoming epidemic was on January 22nd, when five notifications were received from the Bristol General Hospital, to which Institution the cases had been admitted. Four of the cases were from the district of Bedminster, and one from Cotham. All these cases were bacteriologically confirmed as meningococcic. On receipt of the Notifications of these cases, special arrangements were made for investigation, and for the supervision of house contacts, Schools, Sunday Schools, &c., and other means of intercourse, and Practitioners were warned as to the necessity of prompt notification.

Arrangements were also made for securing early lumbar puncture and bacteriological diagnosis through the University Laboratory (Professor Walker Hall), and for medical aid to be promptly given towards treatment of suspect contacts, and a ward was specially reserved at Ham Green Hospital for the reception of cases. The whole of the cases during the year, however, were treated at the Public Institutions, and no cases were removed to the City Hospitals.

In two cases only was there any evidence of contact, viz., two children, B. C., 4½f., and E. R. P., 9f., both residing in the district of Bedminster. These two children attended the same Sunday School. Their last attendance at Sunday School was 11th January. They also attended a tea and entertainment in connection with the Sunday School on Tuesday, 13th January, sickened 14th January and 18th January respectively. Both children died—B. C., 4½f., 7th June; and E. R. F., 9f., 22nd January. In no other cases is there evidence of the patients or families being known to each other.

A weekly report of the cases notified, with any added special information, was reported to the Local Government Board during the year.

Anterior Polio Myelitis.

During the year two cases were notified (one male 3½ and one female 6/12). Neither case proved fatal. The child of 6/12 made a good recovery, and when re-visited on the 22nd April, 1915 was apparently quite well, with no sign of paralysis. The child of 3½ was also re-visited on the 22nd April, and was found to have marked paralysis of both legs, and to be still attending the General Hospital for treatment.

The following tables show the number of cases notified, and deaths, since the resolution of the Council came into operation adopting the Notification of Cerebro-Spinal Fever and Anterior Polio Myelitis in October, 1911 :---

CEREBRO-SPINAL FEVER.

YEAR			Cases Notified.	Deaths
1911*	...	...	1	4
1912††	...	...	6	3
1913	...	...	16	14
1914	...	...	32	21

ANTERIOR POLIO MYELITIS.

YEAR			Cases Notified	Deaths
1911*	...	...	11	Not classified
1912††	...	...	7	do.
1913	...	...	7	...
1914	...	...	2	...

* Notification adopted for six months ; came into operation 9th Oct., 1911.

† Notification permanently adopted ; came into operation 4th April, 1912.

‡ Compulsory Notification under Local Government Board Order, 15th August, 1912.

Distribution of the diseases by age and sex, also cases removed to Hospital during the year 1914, are as follows:—

TOTAL NUMBER OF CASES NOTIFIED.		NUMBER OF CASES.													
		0-1 year.		1-5 years		5-10 years		10-15 years		15-20 years		20-30 years.		Over 36 years	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
		CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES	CASES
		DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS	DEATHS
		PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*	PERMANENT PARALYSIS*
Acute Poliomyelitis ..	2	1		1	1										
	32	1	1	9	7	6	5	4	2	2	2	2	1	2	2
Number of Cases removed to Isolation Hospital		No cases were admitted to City Isolation Hospital. All cases removed were sent to the Public Institutions, Bristol General Hospital & Bristol Royal Infirmary. *Recovered with permanent paralysis of one or more groups of muscles.													
Acute Poliomyelitis ..					1										
Cerebro-Spinal Fever ..			1	7	6	4	1	2		2		1		2	1

OBSERVATIONS.—Two fatal cases included in this return were notified as C.S.F., and the causes of death were returned: one boy 3½, Lateral Sinus Thrombosis Meningitis; two women, 35, Meningitis Olfitis Media. No military cases were reported during 1914.

The whole of the living patients were specially revisited on 21st and 22nd April, 1915, and their present condition is shown in the following statement:—

CEREBRO SPINAL FEVER.

Disease and No. of Case	Name, Address and Age of Patient.	Date of Visit	REMARKS.
C.S.F. 250	W.F., 19m., 16 P-w rd.	April 21	No paralysis; has been able to follow work (baker) ever since; no trouble beyond periodic severe headache.
C.S.F. 265	S.C., 7m., 18 C n rd.	April 21	No paralysis; but cannot walk far and complains of pains in ankles; is attending B. G. H. as outpatient.
C.S.F. 266	D.R., 1½m., 18 P-a rd.	April 21	Is still totally deaf, and has at times an uncontrollable temper; mother is trying to get him in Deaf and Dumb Institution, Kingsdown.
C.S.F. 394	J.A., 32m., 8 N-y rd.	April 22	Family removed from Bristol; patient is stated to have joined Army.
C.S.F. 251	P.C.T. 1 10/12f 5 W. H. T.	April 21	No paralysis; is said to be quite well, and is now attending school.
C.S.F. 785	C.B., 17m., 167 V-a rd.	April 21	No paralysis; is said to be quite well, and has been able to follow his occupation ever since.
C.S.F. 786	C.C., 9m., 43 W-E. st.	April 21	No paralysis: is said to be quite well, and has had no illness of any kind since.
C.S.F. 933	T.L., 2m., 47 W-n st.	April 22	Family removed to London; patient's aunt states that he has suffered from fits ever since, but no paralysis. She has heard that a brother of patient is now in a London Hospital suffering from C.S.F.; subsequently diagnosed abscess at back of head; was discharged 1st May quite well.
C.S.F. 961	C.A., 13m., 46 F-r st	April 22	This was a doubtful case, subsequently diagnosed as Rheumatic Fever and Pneumonia; no paralysis, but is said to suffer periodically from severe headaches and nose bleeding.
C.S.F. 1502	D.W., 31m., 13 F-y st.	April 22	No paralysis; has had discharge from ears and violent headaches ever since; is now attending B.G.H., and is to be X-rayed shortly.
C.S.F. 2194	J.J., 28m., 48 C-d rd	April 22	Died from C.S.F. 2nd March, 1915; family now removed; no history of any illness in house; notified 2nd March, 1915; onset, 27th Feb. The illness began as influenza, and meningeal symptoms developed a few days later; comatose at end of meningeal symptoms; little fever; mottling on abdomen. Previous attack in Sept., 1914, from which he recovered in B.G.H.; labourer, not connected with soldiers; had been stiff in the neck since Sept., 1914.

ANTERIOR POLEOMYELITIS.

A.P.M. 1993	M.S., 3½m., 5 C-s C-t.	April 22	Paralysis of both legs very marked; is hardly able to stand; still attending B.G.H.
A.P.M. 2150	L.M.J., 6/12f 17 G-n st.	April 22	No paralysis; is apparently quite well.

TUBERCULOSIS.

Phthisis (Pulmonary Consumption).

The fatality of Pulmonary Phthisis and of other Tubercular diseases, in comparison with that from the seven principal Zymotic diseases is shown here for fifteen years :—

Year.	Phthisis	Other Tubercular Diseases.	Seven Principal Zymotics.
1900	415	145	606
1901	401	139	530
1902	415	162	942
1903	366	154	375
1904	413	144	578
1905	407	152	583
1906	404	137	585
1907	384	114	314
1908	397	140	467
1909	391	133	350
1910	354	129	233
1911	410	124	789
1912	402	102	358
1913	399	97	312
1914	404	99	363

Phthisis is thus shown to be a serious cause of mortality, leading in some years to as many deaths as the seven principal Zymotic (or chief epidemic) diseases ; but the rates in the next table show that the death-rate from this disease has steadily declined since 1840.

City of Bristol.—PHTHISIS.

Year.	Population.	Total Deaths.	Rate per 100,000 Population
Combined Districts :— Bedminster, Bristol, Clifton.	1838	590	422
	1839	643	459
	1840	665	475
	1841	597	358
	1842	550	330
	1843	634	381
	1844	553	332
	1845	560	336
	1846	582	349
	1847	510	306
	1848	560	336
	1849	536	322
	1850	488	393
	1851	478	262
	1852	506	278
	1853	587	322
	1854	479	263
	1855	498	273
	1856	490	269
	1857	527	289
	1858	523	287
	1859	550	302
	1860	481	238
	1861	524	259
	1862	488	241
	1863	477	236
	1864	523	258
	1865	512	253
	1866	564	279
	1867	535	264
	1868	498	246
	1869	527	260
	1870	583	238
	1871	579	236
	1872	567	231
	1873	535	218
	1874	524	214
	1875	528	215
	1876	401	205
	1877	410	207
	1878	435	217
	1879	404	199
	1880	367	179
	1881	341	164
	1882	405	194
	1883	426	203
	1884	410	194
	1885	413	194
	1886	477	185
	1887	332	153
	1888	333	153

PHTHISIS.—continued.

Year.	Population.	Total Deaths	Rate per 100,000 Population.
1889	218,848	326	148
1890	220,442	413	187
1891	222,049	382	172
1892	223,592	372	166
1893	225,028	363	161
1894	226,578	332	146
1895	228,139	317	138
1896	230,626	320	138
1897	232,242	302	130
1898	316,900	393	124
1899	320,911	430	134
1900	324,973	415	127
1901	329,086	401	121
1902	334,632	415	124
1903	338,895	366	108
1904	343,204	413	120
1905	358,505	407	113
1906	363,223	404	111
1907	367,979	384	104
1908	372,785	397	106
1909	377,642	391	103
1910	382,550	354	92
1911	357,509	410	114
1912	359,400	402	111
1913	361,362	399	108
1914	363,312	404	111

PHTHISIS

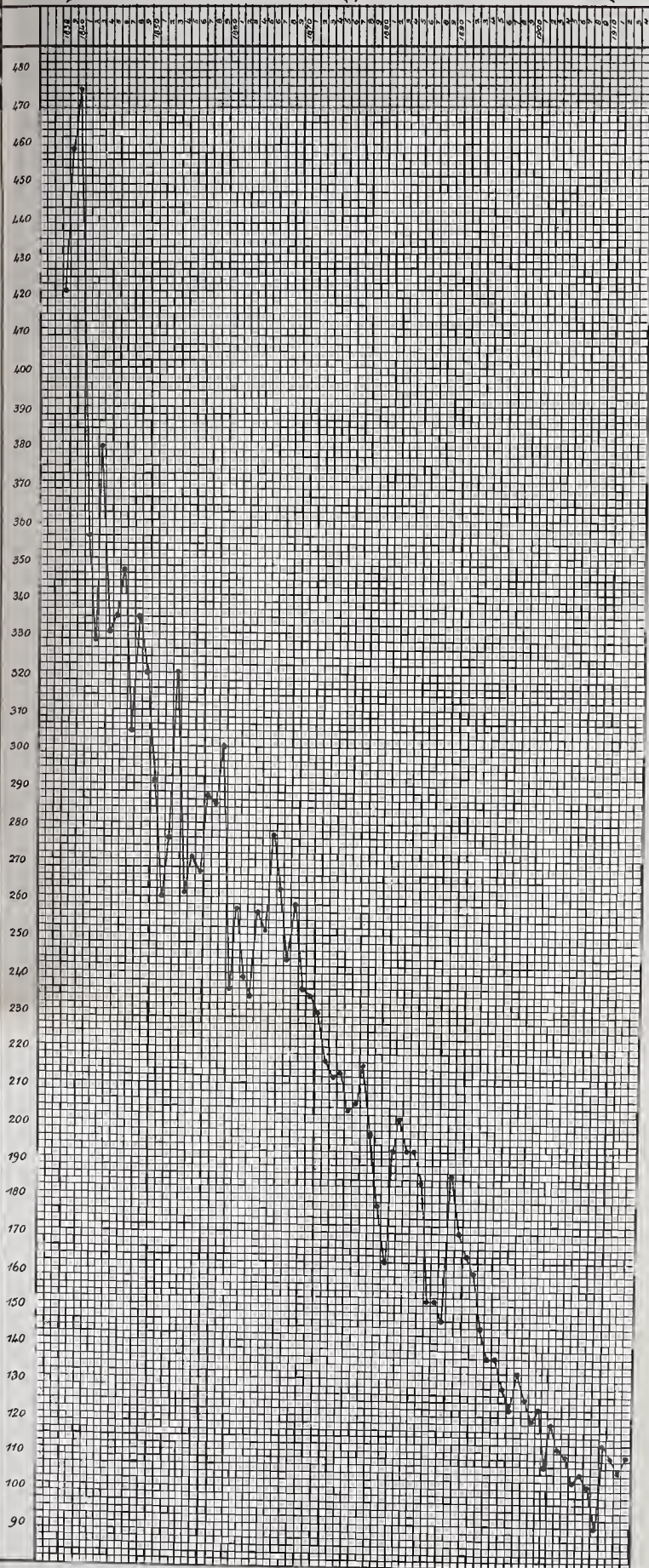
CITY OF BRISTOL

DEATH RATES PER 100,000 POPULATION.

COMBINED DISTRICTS:

BEDMINSTER.
BRISTOL.
CLIFTON.

CITY OF BRISTOL.



TUBERCULOSIS.

Phthisis (Pulmonary Consumption.)

The summary of "Municipal Action taken for the Control of Tuberculosis" which follows, shows that since 1891 Bristol has not been negligent of recurrent opportunities of mitigating the hardships caused by Tuberculosis. This work, which is pre-eminently the work of a Health Committee, has now received the sanction of the National Insurance Act, under which greater facilities are offered to Local Authorities for continuing the good work of relief which many had already begun. The Report of the Astor Committee accepted the measures generally recognised as advisable, centring round Notification, the Tuberculosis Dispensary, the Sanatorium for early cases, and the Hospital.

There can be little doubt that the detection of early cases and the application of suitable treatment, together with other precautions, may prolong many lives and limit some opportunities of infection: thus advantaging the present generation. There does not seem, however, to be sufficient evidence to support the belief that the result of all possible measures will approach the extinction of Phthisis; if, indeed, such measures will affect its endemic constitution favourably at all. This is too wide a question to be discussed here; but it always seems to be essentially sane to avoid the bitterness of disappointment by recognising the limitations set by circumstances and natural selection upon our endeavours.

Municipal Action in Bristol for the Control of Tuberculosis.

A. PAMPHLET ADVICE.

1891. Instructions, based on New York Regulations, first issued.

1892-93-94. Reprinted.

1899. Re-issued.

1904. Revised pamphlet issued. 80,000 copies distributed.

B. SPUTUM FLASKS.

1904. Supplied by St. John's Ambulance Brigade.

1906. Supplied by Health Committee.

No. supplied during 1914—106.

No. of bottles of Disinfectant supplied during
1914—1,409.

Total number of Flasks distributed to end of
1914—537.

Total number of Bottles of Disinfectant
supplied to end of 1914—7,217.

C. REGULATIONS AGAINST SPITTING.

1903. Bye-Law adopted by City Council against spitting.

“A person shall not spit on the floor, side or wall
“of any Public Carriage, or of any Public Hall,
“Public Waiting-room, or Place of Public Enter-
“tainment, whether admission thereto is obtained
“upon payment or not. Any person offending
“against this Bye-Law shall be liable to a fine not
“exceeding £1.”

D. VOLUNTARY NOTIFICATION.

1905. Voluntary Notification of Phthisis adopted by City Council.

Compulsory Notification became Law.	{	1909. Poor Law 1911. Hospitals. 1912. General—superseding Volun- tary Notification. 1913. General Notifications of <i>all</i> <i>forms</i> of Tuberculosis
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F. NOTIFICATION OF TUBERCULOUS CHILDREN ATTENDING SCHOOL.

Number of children attending the Public Elementary Schools, 1914—59,863.

Total notified from 1905 to end of 1914—785 (393 males and 392 females).

Year	Male	Female	Total.
1905	...	15	15
1906	17	27	44
1907	11	23	34
1908	10	10	20
1909	8	6	14
1910	11	10	21
1911	23	41	64
1912	65	72	137
1913	Pulmonary 72 Non-Pulmonary 61	Pulmonary 70 Non-Pulmonary 28	Pulmonary 142 Non-Pulmonary 89
1914	Pulmonary 56 Non-Pulmonary 59	Pulmonary 46 Non-Pulmonary 44	Pulmonary 102 Non-Pulmonary 103

G. SANATORIUM PROVISION FOR EARLY CASES.

The Corporation first acquired and maintained 20 beds in Winsley Sanatorium in 1905. Since then 23 additional beds have been taken over, viz.: 1 in 1912; 6 in April, 1913; and 16 in November, 1914, making 43 in all.

The total number of cases admitted to Winsley Sanatorium up to the end of 1914 was 799.

In 1912 two blocks were set aside for cases of Phthisis at Ham Green.

In July, 1914, a temporary wooden building was completed for treating 20 cases of Surgical Tuberculosis

among children of school age; but, owing to the continued demand for accommodation, it was found impracticable to devote the building especially for cases of Surgical Tuberculosis, and it was used for the accommodation of early cases of Phthisis, thus providing accommodation for 40 patients, instead of 20 previously (only 4 cases of Surgical Tuberculosis were treated), but in November, 1914, owing to the demand made upon the beds by the military cases of infectious diseases, no further cases were admitted; and, as the beds became empty, they were not re-occupied, and eventually, in December, 1914, the total number of patients was reduced to 20.

The total number of cases admitted to Ham Green Sanatorium up to the end of 1914 was 211.

(See "Sanatorium Benefit" scheme later).

H. AFTER HISTORY.

Up to the end of 1913 it was found that of 641 patients discharged from the Bristol Maintained beds at Winsley Sanatorium

280 died
188 could not be traced,
173 were alive, of whom—
135 maintained working capacity
38 were not able to work

This gives a total of 412 candidates in nine years, or an annual figure of 45, who were in need of after treatment upon a Farm Colony or similar institution, or who at any rate needed some further continuous supervision.

I. AFTER CARE.

The After Care of Tuberculous persons is undertaken by all the District Committees of the Bristol Civic League. The patient in need of care is referred to the

office nearest his place of residence. The Committee appoints a worker to visit his home and to supplement the efforts of the City Health Visitors and Tuberculosis Nurses in securing as good conditions in the way of open windows, sleeping accommodation, &c., as possible. Beds and bedding are given when necessary, clothes and fares provided for Sanatoria, and Insurance arrears paid. Cases are referred to the League by the Health Committee, the Insurance Sanatorium Benefit Sub-Committee, doctors and clergy, and also apply for help of their own accord. The District Committee send a report of each person dealt with, his home circumstances, the nature of the help, if any given, to the Tuberculosis Committee of the League. This Committee consists of Medical Men, members of the Health Committee, the Insurance Committee, and the District Committees of the League, the Medical Officer of Health, and the City Chief Tuberculosis Officer and the Clerk to the Guardians. This Committee makes grants in aid—both in money and clothes—to the District Committees; it supplies expert advice, acts as a link between the voluntary work for Phthisis and the various City agencies; it is responsible for passing on reports of the patients, and the work done, to the City Authorities, whether Dispensary, Health, or Insurance Committee, most nearly concerned.

The scheme was fully developed as lately as December. Since then 114 cases have been dealt with by the League. In addition to visiting and advice the following assistance has been given.

Beds and Bedding	...	...	..	12
Clothes for Sanatoria	...	...	...	12
Sent to Country or Convalescent Homes				4
Allowances in Money	...	...	...	7
„ „ Milk or Food	...	...	...	6
Insurance arrears paid...	...	...	...	8

making a total of 49 cases helped directly in addition to help obtained for others by referring them to the proper agencies to deal with their need.

The weak point of the scheme is the possibility of patients in need of "After Care," never getting referred to the Civic League, but we hope this will lessen as it becomes better known.

All the homes of the pre-tubercular children attending the two Open Air Schools are visited.

J. ADVANCED CASES.

Temporary accommodation provided for 27 advanced cases at Clift House Sanatorium.

It is estimated that 150 Hospital beds could be usefully employed.

The Guardians have limited accommodation for advanced pauper cases, as below :

Stapleton	...	...	53 Male
"	...	...	23 Female
			—
Total	...		76 beds
			—

K. PATHOLOGICAL DIAGNOSIS.

1904. Sputum first examined for tubercle bacillus free for Medical Practitioners (City cases only).

Number of examinations during 1914	...	994
Total examined to end of 1914	...	7062
Number of positive results in 1914	...	244
Total positive results to end of 1914	...	1881

L. CONTROL OF MILK SUPPLIES.

1890.—Inspector of Dairies, Cowsheds and Milkshops first appointed.

Dairy Regulations in force.

1905.—Bristol Corporation Act provides penalties for selling Tuberculous Milk in the City, for neglecting to segregate a Tuberculous Cow, or failing to send notice to M.O.H.; gives power to M.O.H. to take samples within the City, also outside the City if fortified with Justice's Order; and to inspect Cows with Veterinary Surgeon for Tuberculosis of the Udder, also powers for dealing with dairies within or without the City suspected of causing Tuberculosis in the City.

1899.—Milk from all farms specially examined for Tuberculosis; four out of 74 samples gave positive results.

1911.—Re-examination; 52 samples taken, all of which gave negative results.

1912.—Re-examination; 26 samples taken, all of which gave negative results.

1913.—Re-examination: 28 samples taken, all of which gave negative results.

1914.—Re-examination: 29 samples taken, all of which gave negative results.

All Milk Contracts for the City Hospitals are framed on lines protective against Tuberculosis.

M. PROTECTION OF MEAT SUPPLIES.

City.—Two Meat Inspectors deal with 97 Private Slaughter Houses in Bristol (17,460 acres). In all meat contracts for the City Hospitals the meat is to be guaranteed free from Tuberculosis or other disease.

Port.—Examination of all cargoes of imported food-stuff is now in force under the Public Health (Regulations as to Food) Act, 1907, and a specially qualified Inspector has been added to the Port Staff for this purpose. He is also assisted by the two City Inspectors of Meat, etc., one of whom also holds the Meat Certificate of the Royal Sanitary Institute.

N. HOUSING CONDITIONS--OVERCROWDING.

The Local Regulations in force provide as follows:—

BYE-LAWS :	Cubic feet
Common Lodging Houses—	
Sleeping Rooms (two children under 10 equal 1 lodger) 	300
Houses let in Lodgings—	
Room used exclusively as sleeping room	300
Room not used exclusively as ,,	400
Workshops (Factory and Workshop Act, 1901) and subsequent Orders of Secretary of State, for each person employed ...	250
Ditto, during overtime or used for sleeping	400
Underground Bakehouses—overtime ...	500

In 1897 two Inspectors gave special attention to Workshops—one is now transferred to a District. Lodging Houses and Bakehouses are supervised by a special Inspector; Tenement Houses are supervised by a special Inspector—appointed in 1910.

The Housing Town Planning, &c., Act, 1909, requires further and more regular and complete inspection and control over the housing of the poor, and Regulations have already been issued for ensuring the systematic exercise of such control. The following table shows the action taken under this Act up to the end of 1914.

Total number of houses inspected, 6,832.

6,832	{	Found defective ...	5,180
		No action necessary	1,652
4,662	{	Closed under Order	271
		Closed voluntarily	405
		Made habitable ...	3,046
		In hand 	940

O. BRISTOL MUNICIPAL TUBERCULOSIS DISPENSARIES.

In 1911 an offer was made to the Bristol Civic League, of a sum sufficient to start a Tuberculosis Dispensary, and work was commenced in February, 1912, at 4, Redcliffe Parade West, with a staff consisting of a Resident Medical Officer and a Visiting Nurse.

In January, 1913, the Dispensary and Staff were taken over by the Bristol Corporation as part of the Permanent Tuberculosis Scheme.

In May, 1914, the Central Dispensary, at 19 Portland Square, was opened.

During the year 1914, 991 new patients attended the Dispensaries, compared with 696 in 1913, and 885 in 1912.

The number of attendances of the various patients was 9,850, compared with 8,293 during 1913, and 6,568 during 1912.

Proportion of cases of Tuberculosis found among the new patients :—

	1912	1913	1914
Pulmonary Tuberculosis	533	475	518
Stigmata and other forms of Tuberculosis and Observation Cases ...	170	149	373
Non-Tuberculous ...	182	72	100
	<hr/>	<hr/>	<hr/>
Total ...	885	696	991
	<hr/>	<hr/>	<hr/>

CITY AND COUNTY OF BRISTOL.

National Insurance Act.

PERMANENT TUBERCULOSIS SCHEME.

A. TUBERCULOSIS DISPENSARY.

The Sub-Committee recommend :—

1. That two Dispensaries are necessary for Bristol,
2. That one Dispensary be established at 19 Portland Square, to be called "The Bristol Municipal Tuberculosis (Central) Dispensary for the Prevention of Consumption;" to provide separate waiting rooms for male and female patients, Consulting Room for the Medical Officer, Laboratory and Dispensing Rooms.
3. That the second Dispensary be a Branch Dispensary, and shall be the Bristol Dispensary for the Prevention of Consumption, at 4 Redcliffe Parade West, now taken over by the Health Committee. This Dispensary to be called "The Bristol Municipal Tuberculosis (Redcliffe Branch) Dispensary."
4. The staffing of the Dispensaries to be arranged as detailed (Paragraph 7).
5. SANATORIUM FOR EARLY CASES.—After further consideration of the question, and after having the advantage of consulting the Local Government Board, your Sub-Committee advise :—

That, in addition to the 21 beds at present at the disposal of the City at Winsley, a further 29 beds be acquired, if possible, making a total of 50 beds available for City purposes at Winsley.

6. SANATORIUM FOR ALL CLASSES OF SUITABLE CASES AND AFTER-CARE CASES (60 beds).

Your Committee suggest that provision to the extent of 60 beds be provided at Ham Green in three blocks of 20 beds in each. Twenty of these beds will be for advanced cases.

7. SCHEME FOR STAFFING AND CONTROL OF THE DISPENSARIES, SANATORIA AND HOSPITALS.

TUBERCULOSIS AND OTHER OFFICERS.

The Sub-Committee consider that three Medical Officers will be necessary to manage a complete Dispensary, Sanatorium and Hospital Scheme, viz.:—

- A. Tuberculosis Officer.
- B. Resident Medical Officer at Ham Green.
- C. Assistant Medical Officer.

(A). A Tuberculosis Officer to be appointed to assume general clinical control of the Central and Branch Dispensaries and all Tuberculosis work in the City. Salary £400, rising by annual increments of £50 to £500.

The Tuberculosis Officer will be a whole-time officer, attached to the Health Department under the general administrative control of the Medical Officer of Health. He will act as expert adviser to the City Insurance Committee in regard to cases of Tuberculosis amongst Insured persons.

(B). A Resident Medical Officer at Ham Green who will take charge of the Hospital and Sanatorium beds (Fever and Phthisis) under the general administrative control of the Medical Officer of Health acting as General Medical Superintendent. He will be a whole-time Officer attached to the Health Department. Salary

£,300, rising by annual increments of £50 to £400, with board, rooms and attendance, less any sum received for treating Insured persons on the staff.

(C). The Assistant Medical Officer will live at Ham Green, and will assist in the Hospital and Sanatorium work, and the work of the Dispensaries, or such other work of the Health Department as may be required.

The Officer will be a whole-time Officer attached to the Health Department. Salary £200, rising to £250, with board, rooms and attendance.

NOTIFICATIONS, 1914.

TABLE I.—CASES.

1271 cases were notified under the Public Health (Tuberculosis) Regulations, 1912, which came into operation on the 1st February, 1913 (933 Pulmonary and 338 non-Pulmonary).

One hundred and forty-nine cases were duplicates, having been previously notified.

The actual number of new cases notified during the year was therefore 1132—810 Pulmonary and 322 non-Pulmonary, and these are dealt with in the following Tables:—

PULMONARY PHTHISIS.

In 526 cases, disease was reported as Phthisis of Lungs
 „ 151 „ „ „ „ of right lung
 „ 133 „ „ „ „ of left lung
 ———
 810

NON-PULMONARY TUBERCULOSIS.

TABLE showing classification of the 322 non-Pulmonary cases:—

Tuberculous Meningitis ...	...	...	47
Tuberculosis of Peritoneum and Intestines	...	...	89
„ „ Spinal Column	...	...	16
„ „ Joints	...	...	40
„ „ other Organs	...	...	130
Total	...	...	322

INSURANCE CASES.

TABLE showing number of Insured Persons, &c. notified.

Type of Disease	Insured	Insur- able.	Depen- dants.	Non- Insured	Outside City In- stitution, etc. Cases	Totals
Pulmonary Tuberculosis ...	356	3	250	76	125	810
Non-Pulmonary Tuberculosis ...	68	—	192	25	37	322
Totals ...	424	3	442	101	162	1132

TABLE II.—CASES

History Table, showing Relatives affected.

Type of Disease.	Father	Mother	Husband	Wife	Brother	Sister	Son	Daughter	Uncle	Aunt	G. Father	G. Mother	Cousins	No. of Cases Notified.
Pulmonary Cases (Phthisis)...	48	43	19	5	55	66	14	16	16	15	2	2	4	810
Non-Pulmonary Cases ...	18	17	...	...	28	25	1	...	7	12	4	5	1	322

TABLE III.—CASES.

Occupations of Notified Cases.

	Pulmonary			Non-Pulmonary		
	Male	Fem.	Total	Male	Fem.	Total
Agents, Canvassers, Travellers, etc.	7	—	7	1	—	1
Attendants	5	—	5	—	—
Baker and Confectioner	...	1	—	1	—	—
Brushmaking	...	2	1	3	—	—
Blacksmith	1	—	1	—	—
Boot, Shoe and Leather	...	15	6	21	1	—
Bottler	1	—	1	—	—
Boxmakers	2	4	6	1	1
Butchers, etc.	...	6	—	6	—	—
Button Workers	...	—	—	—	2	2
Chimney Sweeping	...	1	—	1	—	—
Clerks	26	10	36	3	1
Caretaker	1	—	1	—	—
Cattle Drover	...	1	—	1	—	—
Charwomen	—	2	2	—	—
Cocoa	1	10	11	2	2
Colliers	6	—	6	1	—
Cinema Operator	...	1	—	1	—	—
Clothing, Tailoring and Cotton	...	5	24	29	6	6
Dairymen, etc.	...	2	—	2	—	—
Domestic Servants	...	—	23	23	6	6
Drivers	9	—	9	2	—
Electrician	1	—	1	—	—
Engineers	8	—	8	3	—
Farming, etc.	...	1	—	1	1	—
Florist, etc.	...	1	—	1	—	—
Flour Works	...	1	—	1	—	1
French Polisher	...	—	—	1	—	1
Fruit Packer	...	—	1	1	—	—
Gardeners, etc.	...	3	—	3	—	—
Glass Worker	...	1	—	1	—	—
Hatter	1	—	1	—	—
Hawkers	3	—	3	1	—
Haulier, etc.	...	1	—	1	—	—
At Home	—	14	14	3	3
Housewives	—	112	112	13	13
Ironworkers	...	12	—	12	1	—
Joiners, Carpenters & Cabinet Makers	12	—	12	3	—	3
Laboratory Assistant, etc.	...	1	—	1	—	—
Labourers	51	—	51	7	—
Laundry	—	5	5	—	—
Carried forward	190	212	402	28	34	62

TABLE III.—CASES. **Occupations of Notified Cases.**—*Continued.*

			Pulmonary			Non-Pulmonary		
			Male	Fem.	Total	Male	Fem.	Total
Brought forward			190	212	402	28	34	62
Masons	...	...	4	—	4	1	—	1
Mission Worker	...	...	—	1	1	—	—	—
Musician	...	...	—	1	1	—	—	—
No Occupation	...	...	15	25	40	48	42	90
Nurses	...	...	—	2	2	—	—	—
Oilcake Worker	...	...	—	—	—	1	—	1
Painters	...	...	6	—	6	—	—	—
Paper, Printing and Stationery	...	...	9	16	25	2	3	5
Plumbers	...	...	2	—	2	—	—	—
Police	...	...	1	—	1	—	—	—
Porters	...	...	3	—	3	2	—	2
Potters	...	...	2	—	2	—	—	—
Publicans, Barmen, etc.	...	...	2	—	2	1	3	4
Quarryman	...	...	1	—	1	—	—	—
Army and Navy	...	...	4	—	4	1	—	1
Railway	...	...	11	—	11	—	—	—
Ropemaking	...	...	1	1	2	—	—	—
Rubber	...	...	—	—	—	—	1	1
Scalemaking	...	...	—	—	—	1	—	1
Sea	...	...	8	—	8	—	—	—
School	...	...	56	46	102	59	44	103
Shipwright	...	...	—	—	—	1	—	1
Shop Assistants	...	...	7	12	19	—	3	3
Shopkeepers	...	...	6	—	6	1	—	1
Sieve Maker	...	...	—	—	—	1	—	1
Sweet Maker...	...	...	—	1	1	—	—	—
Teachers	...	...	2	4	6	—	—	—
Tobacco	...	...	6	15	21	2	5	7
Theatrical	...	...	1	1	2	—	—	—
Tinsmith	...	...	—	—	—	1	—	1
Waitress	...	...	—	1	1	—	—	—
Violin Maker	...	...	1	—	1	—	—	—
Warehouses	...	...	7	—	7	—	—	—
Watchmaker and Jeweller	...	...	—	1	1	—	—	—
Wheel Chairman	...	...	1	—	1	—	—	—
			346	339	685	150	135	285
Outside City cases				...	5	...		—
Institution				...	44	...		5
Particulars not obtainable				...	76	...		32
Total				...	810	...		322

TABLE IV.—CASES.

Table showing number of Persons in patient's family.

Persons in family ...	1	2	3	4	5	6	7	8	9	10	11 and over	Outside City, Institut'ns, &c.	Totals
Pulmonary Tuberculosis ...	44	67	117	106	109	84	65	46	18	16	13	125	810
Non-Pulmonary Tuberculosis ...	6	11	29	55	49	48	26	27	20	9	5	37	322
Totals ...	50	78	146	161	158	132	91	73	38	25	18	162	1132

Number of Rooms occupied by patient's family.

Rooms occupied by patient's family	1	2	3	4	5	6	7	8 and over	Outside City, Institut'ns, &c.	Totals
Pulmonary Tuberculosis ...	33	56	55	88	67	300	28	58	125	810
Non-Pulmonary Tuberculosis ...	9	19	19	52	25	132	14	15	37	322
Totals ...	42	75	74	140	92	432	42	73	162	1132

TABLE V.—CASES.

Common and Institution Lodging House Cases.

Notified in Common and Institution Lodging Houses :—

Pulmonary ..	..	..	21
Non-Pulmonary ..	..	..	—
Total ..			21

Milk.

726	Cases—Name of milkman reported.
181	„ Obtained from casual sellers.
63	„ Used Condensed Milk.
290	„ Milk was boiled before use.

Disinfection.

459	Cases—Rooms were disinfected.
276	„ Bedding, etc., was disinfected.

Sputum Flasks.

106	Sputum Flasks were supplied.
1,409	Bottles of Disinfectants were supplied.

Schools.

102 Pulmonary Cases—56 Males and 46 Females—attended the Elementary Day Schools ; also 103 non-Pulmonary Cases—59 Males and 44 Females.

TABLE VI.—Deaths.

Enquiry into 503 Deaths—404 Pulmonary and 99 non-Pulmonary—returned from Tuberculosis :—

	Pulmonary	Non-Pulmonary	Total
Died at Home ..	275	57	332
„ Stapleton Workhouse ..	51	4	55
„ Eastville Workhouse ..	11	2	13
„ Southmead Workhouse ..	9	0	9
„ Lunatic Asylum ..	22	3	25
„ Other Institutions ..	36	33	69
	404	99	503

TABLE VII.—Deaths.

Year of Notification of 503 Fatal Cases—404 Pulmonary and 99 Non-Pulmonary :—

Deaths amongst cases notified in—	Pulmonary	Non-Pulmonary	Total
1905	5	—	5
1906	3	—	3
1907	1	—	1
1908	3	—	3
1909	3	—	3
1910	10	—	10
1911	22	—	22
1912	40	—	40
1913	87	13	100
1914	230	86	316
	404	99	503

Disinfection.

283	Cases—Rooms were sprayed.
220	„ —Bedding, etc., disinfected.

WINSLEY, HAM GREEN & CLIFT HOUSE SANATORIA.
City-Maintained Beds, 1914.

ADMISSIONS.

	INSURED	NON-INSURED	MALES	FEMALES	TOTAL
Winsley ...	86	40	85	41	126
Ham Green ...	25	77	29	73	102
Clift House ..	54	41	44	51	95
Totals ..	165	158	158	165	323

During the year 67 males and 103 females (non-insured persons) made application to the Bristol Health Committee for Sanatorium treatment.

The ages of these 170 applicants were 70 under 15 ; 36 at ages 15 to 25 ; 64 at ages 25 to 65.

The following table shows how the applications were dealt with :—

147 admitted to Sanatoria—Winsley 39, Ham Green 68, Clift House 40.

2 recommended for Dispensary treatment.

5 rejected by Tuberculosis Officer as “ not suitable.”

14 withdrawn.

2 died after receipt of application.

170 Total

Winsley Sanatorium.

Admitted to the Sanatorium—85 males, 41 females.
 Total 126 (insured 86, non-insured 40).

Discharged from the Sanatorium : 70 males, 45 females.
 Total 115.

Average daily occupation=37·84.

The “ Class ” in which the 115 discharged cases were placed on admission to the Institution (Winsley Resident Medical Officer’s selection) :—

Class	I.	Cases	...	27
”	II.	”	...	42
”	III.	”	...	40
”	IV.	”	...	6
				<hr/>
				115

Condition stated upon discharge :—

57 fit for some work

31 discharged improved.

2 discharged little improved

23 discharged not improved

2 prematurely discharged

115 Total

AFTER HISTORY.**AFTER HISTORY OF PATIENTS TREATED IN THE BRISTOL
MAINTAINED BEDS AT WINSLEY SANATORIUM.**

Year of Discharge	Total No. Discharged.	Alive on 31st Dec.. 1914.	Well and Working Capacity maintained	Whereabouts unknown	Dead
1905	45	2	1	16	27
1906	67	10	8	11	46
1907	68	13	9	34	21
1908	78	15	11	22	41
1909	75	18	16	27	30
1910	67	15	12	16	36
1911	68	21	18	25	22
1912	80	33	28	14	33
1913	93	46	32	23	24

Ham Green Sanatorium.

One hundred and two patients were admitted to Ham Green Sanatorium (29 males and 73 females), 25 being insured persons, and 77 non-insured.

Average daily occupation, 25.09.

Discharged from the Sanatorium—26 males, 72 females—Total 98.

Clift House Sanatorium.

Ninety-five patients were admitted to Clift House Sanatorium (44 males and 51 females), 54 being insured persons and 41 non-Insured.

Average daily occupations 24·8.

Discharged from the Sanatorium—21 males, 56 females. Total 57.

Died at the Sanatorium—7 males, 5 females. Total 12.

NOURISHMENT GRANTS.

Non-Insured Persons.

Nourishment grants were made in six cases, as follows :—

- 1 case received milk and eggs
- 2 cases received milk
- 3 cases received milk and meat.

Total 6

THE NATIONAL INSURANCE ACTS, 1911

INSURANCE COMMITTEE for the BOROUGH of BRISTOL
Three Years' Administration of Sanatorium Benefit,

The Bristol Insurance Committee commenced administration of the Sanatorium Benefit part of the National Health Insurance Act on July 15th, 1912. By July 2nd, 1915—practically 3 years 981 applications for Benefit had been made, and 874 persons had received treatment.

Of these there are still receiving treatment showing how lingering the disease is ... 440

Of the remainder (434) there have

Left the district ...	82
*Died ...	242

Not attending the Dispensary nor the panel doctor and presumable improved and cured ...	110—434
Total	874

About £22,000 has been spent in this work in the three years. It is a little depressing to find so few positive results.

The details of the treatment are given below :—

†Treated in Sanatoria ...	521 persons
Given Dispensary Treatment only ...	140 "
Given Domiciliary " " ...	183 "
Given Dispensary and Domiciliary Treatment	30 "
	874 "

† Of the 521 persons treated in Sanatoria
155 Cases received Dispensary Treatment also.
102 Cases received Domiciliary Treatment also.
50 Cases received both Domiciliary and Dispensary Treatment
49 persons received a subsequent or second period of Treatment in Sanatoria.
1 person received a third period.
3 persons are waiting to receive a second period in Sanatoria

* Of the 242 deaths
94 had received Sanatorium Treatment.
22 had received Dispensary Treatment also.
111 had received Domiciliary Treatment only.
15 has received Domiciliary and Dispensary Treatment only.

Of those still receiving Treatment on July 2nd, 1915,

In Sanatoria ...	58
Receiving Dispensary Treatment ...	245
" Domiciliary Treatment ...	117
Waiting admission to Sanatoria and attended by Panel Doctor or Dispensary ...	20
	440

WALTER SAISE,

Chairman Bristol Insurance Committee.

AMBULANCE RECORD.

Infectious Cases Removed.

MONTH.	MOTOR AND HORSE AMBULANCES					MOTOR AMBULANCE.		
	Total No. of Cases Removed	Average Daily No. of Cases Removed	Journeys	Total Mileage	Average Daily Mileage.	No. of Days used	Total Mileage	Average Daily Mileage when used.
January	180	5.8	100	1,550	50.0	26	1,349	51.8
February	169	6.0	95	1,527	54.5	26	1,513	58.1
March	180	5.8	97	1,615	52.0	26	1,453	55.8
April	169	5.6	104	1,500	50.0	26	1,360	52.3
May	134	4.3	90	1,318	42.5	30	1,287	42.9
June	118	3.9	78	1,179	39.3	12	563	46.9
July	148	4.7	91	1,353	43.6	21	942	44.8
August	97	3.1	65	1,112	35.8	28	1,077	38.4
September	160	5.3	102	1,416	47.2	21	1,039	49.4
October	188	6.0	112	1,739	56.0	30	1,739	57.9
November	181	6.0	107	1,796	59.8	26	1,551	59.6
December	152	4.9	95	1,517	48.9	30	1,517	50.5
TOTALS	1,876	5.13	1,136	17,022	48.27	302	15,390	50.96

DISINFECTION STATION AND AMBULANCE SERVICE.

The Disinfection Station is on the site formerly occupied by the City Small-pox Hospitals in St. Philip's Marsh, and the buildings now comprise :—

(1) Disinfecting Block containing two Steam Disinfecting Machines, Receiving Room, Clearing Room, and a Boiler House.

These rooms have been erected for some years, and are sufficient for the purpose, except that the boiler house would be more convenient if a little larger. No laundry is attached, as this was deleted from the original plans, but a laundry would add to the completeness of the arrangements.

(2) The stable buildings completed in 1906 are of modern construction, fairly lighted, and well ventilated, with enough accommodation to meet the requirements of the Ambulance and Disinfecting Services, and are now converted to a motor house.

The old sheds have been enlarged and adapted to serve as coach house and cart shed.

The Ambulance Service and cottage accommodation for both the ambulance driver and the stableman, have been removed from Clift House Stables, and at present the men are temporarily accommodated in private houses in the neighbourhood.

In October, 1909, a Motor Van commenced running for the collection of infected articles. This Motor Van displaces the services of two drivers and two horses. It is worked in conjunction with a horse

delivery cart for the return of articles after disinfection, and is to be supplemented by a second motor collecting cart.

In November, 1912, a Motor Ambulance was provided for the removal of patients to Hospital, replacing the two pair-horse Ambulances, which are now in use in relief; but, in case of Small-pox, both might be found necessary for routine service. A second Motor Ambulance is to be provided.

The removal officer lives on the premises with his wife, and they act as caretakers. The Ambulance nurse also lives on the premises, and separate Isolation Room accommodation under the Infectious Diseases (Prevention) Act, 1890, is provided.

Plans have been approved for the erection of cottage accommodation for the Ambulance drivers on the premises.

I am, my Lord Mayor and Gentlemen,

Your obedient Servant,

D. S. DAVIES, M.D., LL.D., D.P.H.

Medical Officer of Health for the City and County of Bristol, and for the Port of Bristol; General Medical Superintendent City Hospitals; Lecturer on Public Health, University of Bristol (Medical School), and Internal Examiner in Public Health to the University; Past President of the Society of Medical Officers of Health; of the Bath and Bristol Branch of the British Medical Association and of the Bristol Medico-Chirurgical Society; formerly Examiner in State Medicine (M.D. Examination), University of London and for the D.P.H. (Part II.) Examination (conjoint Board); Member of Board of Examiners of the Royal Sanitary Institute; Late Medical Inspector (on Cholera Survey and General Sanitary Survey of England) to H.M. Local Government Board; Sur. Col. (ret'd.) V.D. 1st Glos. R.G.A. (V.); Lt. Col. R.A.M.C. Sanitary Service Territorial Force, etc.

June, 1915.

THE MIDWIVES ACT, 1902.

Report for the Year 1914.

The administration of the above Act, which had previously been in the hands of the Watch Committee, was transferred to the Health Committee by resolution of the Council on 3rd October, 1911. The work, however, continued to be carried out by the Divisional Police Surgeons until 11th April, 1912.

MIDWIVES.

Of the 409 Midwives residing in the City, 71 notified intention to practise during 1914. Of these 10 are attached to Nursing Homes or Institutions, and 61 are in private practice; 12 practising midwives live outside the City boundary—6 attached to Institutions, 6 in private practice. Three Midwives who were in practice in 1913 did not give notice in 1914, having either retired or left the district.

The following table shows the number of Midwives resident in the City, and the number of those in actual practice :—

Qualification.	Resident	In Practice
Central Midwives Board ...	224	18
London Obstetrical Society ...	118	13
Rotunda Hospital ..	6	1
Queen Charlotte's Hospital ...	2	...
Glasgow Maternity Hospital ...	1	1
Coombe Hospital ...	1	1
City of London Lying-in Hospital	1	1
Liverpool Lying-in Hospital ...	1	...
	354	35
In practice prior to July, 1901 ...	55	36
Totals ...	409	71

Notices of temporary practice in this area were received from two certified midwives, one resident outside the City.

Four Midwives died during the year, only one of whom was in practice ; her Certificate was returned to the Central Midwives' Board for cancellation.

Nine changes of address were notified by midwives and duly communicated to the Board.

SUPERVISION.

Section 8.—“ It shall be the duty of the Local Supervising Authority (i.) To exercise general supervision over all midwives practising within their area”

210 routine inspections were made during the year to 55 midwives in private practice in the City and residing therein. Those resident in the Gloucestershire District are, by arrangement with the Gloucestershire County Supervising Authority, kept under supervision by that Authority, and are no longer visited by us, save for some very special reason : similarly those resident in the City, but occasionally attending cases in the County, are dealt with by the City. The inspections are carried out by the two Health Visitors, who, for this purpose, act as Deputy Inspectors of Midwives.

The condition of the residences, registers, dresses, bags, appliances, antiseptics, etc., of 31 midwives was found to be quite satisfactory at each visit during the year.

The defects found to exist on inspection of the remainder of the midwives were as follows :—

<i>Residences, &c.</i>	{	Residence dirty or untidy	8
		Dress material unsuitable	3
<i>Registers</i>	{	Not kept	2
		Not properly kept ...	2
		Behind	7
		Pulse & temperatures not recorded	7
<i>Bags</i>	{	Soiled Lining, or bags ...	7
		New Linings required ...	4
		New Bags required ...	2
<i>Appliances</i>	{	Syringe required ...	8
		Not protected ...	2
<i>Antiseptics</i>	{	Antiseptics not suitable ...	2
		Fresh labels required for bottles	8

These conditions were all subsequently remedied.

Midwife No. 12458 was interviewed with regard to an improperly kept register and faulty bag lining: on the next inspection the lining was still faulty; she was instructed to renew it within a certain time.

Two midwives (Nos. 19796 & 6822) were found wearing stuff dresses while attending cases: both were warned and had their attention drawn to the C.M.B. Rule regarding the use of linen or cotton dresses.

It was found that pulse and temperature records were in many instances not being satisfactorily kept, and the Central Midwives Board was consulted with regard to the matter. They stated that they preferred, "That pulse and temperature records should be kept in a separate book provided for the purpose," but left the exact form to the discretion of the Local Supervising Authority. A book of forms was accordingly drawn up and each practising midwife was furnished with a copy.

Section 8 (ii.).—“ To investigate charges of malpractice, negligence or misconduct on the part of any midwife”

MIDWIFE NO. 11093. Complaint of want of attention was made against this midwife by a patient : the midwife was interviewed and strict enquiry made to ascertain whether the complaint was justified. No definite proof of negligence could be obtained, but the midwife was strictly cautioned as to her method of practice.

MIDWIFE NO. 5015. Complaint of neglect of a patient: the midwife was cautioned as to taking temperatures regularly, attending to patient's cleanliness and sending for a doctor in accordance with the Rules.

Early in the year information was received that certain Institutions in the City granting Maternity Notes had a Rule that a midwife engaged on these notes was only expected to pay a limited number of visits (in one case four). Such few visits if spread out over the 10 days of attendance might mean failure to detect illness of the mother or child at its commencement, or if paid closely after the confinement might mean cessation of attendance long before the normal 10 days were up, with a like risk of illness escaping detection. The attention of the Secretary of the Central Midwives Board was drawn to the above, and he was asked whether the Institution Rules or the Central Midwives Board's Rule E11, under which the patient is in charge of the midwife during the time occupied by the labour and for a period of 10 days thereafter, was to be observed. The reply was to the effect that such institution Rules were “*ultra vires* and do not relieve the midwife of the strict obligation of conforming to the Regulations laid down by the Board.” A letter to the above effect was sent to each practising midwife in the City.

The matter subsequently came under consideration by the Bristol and District Midwives Association, the Institutions were communicated with and the payment for their maternity cases, which like the number of visits, had been quite inadequate, was increased.

Section 8 (iii.) "To suspend any midwife from practice, in accordance with the Rules under this Act, if such suspension appears necessary in order to prevent the spread of infection."

No suspension under this section was required during the year.

Seven midwives were given disinfecting baths at the Central Disinfecting Station after attendance on cases of Puerperal Fever, their bags and appliances were disinfected and new instruments supplied when destruction of the old ones was considered necessary. Another midwife in whose practice there had occurred four cases of Ophthalmia Neonatorum was similarly dealt with. Two maternity nurses also underwent disinfection after nursing Puerperal Fever.

CASES ATTENDED.

Out of a total of 6,675 births notified, 4,694 (70 per cent.) were notified by midwives. Of these 227 were still-births, which are not registrable. The per centage of registered births (7,783) which were attended by midwives is 57. All midwives' cases are visited as far as is possible with an insufficient staff. Still-births are not at present being visited.

Puerperal Fever.—During the year ten out of a total of 23 notified cases of Puerperal fever occurred in women attended by midwives. As 70 per cent. of the notified births were attended by midwives, the proportion of cases of this disease among their patients appears to show that they received satisfactory care and attention from those in attendance. There was no instance of multiple cases, arguing carriage of infection, in any midwife's practice.

The following table gives the per centage of cases to births and the number of deaths :—

YEAR	Births Attended.	P.F. Cases.	Per centage to Births.	Deaths.
1913	4854	10	0'20	2
1914	4694	10	0'21	2

Ophthalmia Neonatorum.—In pursuance of their powers under Section 130 of the Public Health Act, 1875, the Local Government Board issued Regulations during the year by which the disease of *Ophthalmia Neonatorum* was made compulsorily notifiable in every sanitary district in England and Wales as from the 1st April, 1914.

Every Certified Midwife, who has reasonable grounds for supposing that a child upon whom she is in attendance or whom she is called in to visit in the course of her practice is suffering from *Ophthalmia Neonatorum*, must, unless the case has been already notified by a Medical Practitioner, forthwith make a notification to the Medical Officer of Health for the District.

Full information with regard to this disease and the measures adopted to deal with it is included in the report on the working of the Notification of Births Act, 1907 (p. 122).

The following Table gives some particulars of the cases arising in the practice of midwives in 1914:—

Total cases notified	Notifi'd by Mid-wives	Cases among births attended by Mid-wives	TYPE.				RESULT.			
			Mild	Moder-ate	Severe	Not Ophth	Com-plete re-covery	Injury	Death before re-covery	Not known
70	36	60	25	16	11	8	53	0	5	2

C.M.B. FORMS RECEIVED.

Year	FORM A			Form B	Form C	Form D
	Mother	Child	Total			
1913	265	172	437	3	146	2
1914	267	390	657	9	131	7

Form A.—Medical help was advised by midwives on 657 occasions as compared with 437 in 1913 for the following reasons:—

MOTHER		No.	CHILD		No.
Abnormal Presentation	..	29	Premature Births	..	16
Prolonged or Obstructed Labour	..	34	Feebleness	..	36
Instrumental Assistance	..	12	Inanition	..	1
Uterine Inertia	..	5	Convulsions	..	6
Contracted Pelvis	..	16	Asphyxia	..	3
Adherent or Retained Placenta	..	18	Dyspnoea	..	4
Hour-glass Contraction of Uterus	..	1	Eyes	..	2
Placenta Prævia	..	9	Imperforate Anns	..	1
Hæmorrhage { Ante-Partum	..	9	Spina Bifida	..	3
{ Post-Partum	..	4	Tongue-tie	..	5
Ruptured Perinæum	..	47	Malformations { Hare-lip	..	1
Pyrexia	..	11	{ Cleft Palate	..	1
Premature Births	..	3	{ Anencephalic Monster	..	1
Stillbirths	..	2	{ Not stated	..	1
Miscarriages	..	8	{ Weak	..	17
Fainting after Delivery	..	2	{ Inflamed	..	38
Prolapse of Cord	..	2	Eyes .. { Swollen	..	2
Vomiting	..	4	{ Discharging	..	213
Eclampsia	..	1	{ Ophth. Neon.	..	8
Rigor	..	1	Hæmatoma	..	1
Œdema of Vulva	..	1	Jaundice	..	7
Hysteria	..	2	Indigestion	..	1
Bronchitis	..	2	Moaning	..	3
Pleurisy	..	1	Dermatitis	..	1
Pneumonia	..	1	Colds	..	5
{ Side	..	3	Rash	..	6
Pain in { Head and Legs	..	4	Epistaxis	..	1
{ Breast	..	1	Swel- } Elbow	..	1
{ Groin and Leg	..	1	ling in } Head	..	1
{ Abdomen	..	3	Blisters	..	2
Anæmia	..	3	Œdema of Feet and Legs	..	1
Puffiness of Face and Legs	..	1	Not definitely stated	..	1
Swelling in Legs	..	2			
Phlebitis	..	3			
Weakness	..	7			
Asthma	..	1			
Debility	..	4			
Dropsy	..	1			
Bright's Disease	..	2			
Colds	..	5			
Not definitely stated	..	1			
		267			390

From the foregoing Table it appears that there has been a closer observance of the C.M.B. Rule E19, than in the year 1913. The increase in duplicate Forms A received this year is almost entirely due to the greater care in advising medical help in cases of "inflammation of, or discharge from, the eyes, however slight," the number of cases reported in 1914 being 278 as compared with 75 in 1913. This shows that the importance of prompt attention to abnormal eye conditions has become more widely recognised by the midwives, but unfortunately it by no means follows that the parents accept the advice to obtain medical aid thus given.

The whole question of advising and obtaining medical aid appears to require consideration and organisation. In some towns, as in Manchester and Liverpool, Guarantee Funds are provided out of which the cost of medical attendance is defrayed. The following is quoted from the Liverpool Annual Report for 1913:— "The general arrangement includes the establishment of a Fund, known as the Midwives' Guarantee Fund, to which each midwife pays a fee of 1s. for every birth she attends, whether medical assistance is ultimately required or not, and an additional 1s. in each case where medical aid is summoned. These contributions are paid in to the City Treasurer, and are available for the purpose of paying about two-thirds of the fees due to medical practitioners who may be called in to render assistance under the Midwives Act, the balance being paid by the Health Committee." The report states the amount paid in 1913 was £619 5s. 10d., so that the amount paid by the Health Committee would have been about £200.

There can be no doubt that inability to pay medical fees frequently prevents a doctor being called in, and the result of this neglect of proper assistance is not infrequently serious. The Maternity Benefit granted under the

National Insurance Act is often urgently needed for other purposes.

I would suggest the advisability of providing means to meet this difficulty, by Guarantee Fund or otherwise, and advise the Health Committee to take the matter under consideration at an early date, as any measure likely to benefit the mother and child is of great importance under present circumstances. Another reason for adoption of such a scheme is that under it information of pregnancy would be obtained which would lead to advice to expectant mothers and would facilitate the ante-natal work which is so important.

Form B.—Nine deaths of infants which occurred before the arrival of a medical man were notified on Form B by Midwives.

Form C.—131 forms notifying stillbirths were received. 227 stillbirths were attended in all by midwives (4·8 per cent. of total births), but these notices are only required in cases where no medical practitioner is present at the time of the birth. Notices were also not received in 77 cases attended by midwives attached to certain approved Institutions in the City, as they are exempted under the C.M.B. Rules from sending in all forms. It is not clear why this exemption should exist nor what advantage can attach to it. It may be due to the fact that these Institutions being schools for the training of midwives most of the cases are attended by women taking their course for qualification; and, not being qualified, are not bound to observe the C.M.B. Rules. It seems however a very short-sighted policy to exempt students from obeying under the supervision of their teachers, all the

C.M.B. Rules, because when qualified they are launched into practice without practical acquaintance with the need for and use of the required forms, etc., and may thus cause themselves and their Supervising Authority considerable and unnecessary trouble. In this City at all events no objection could be raised on the plea that expense would be thrown on charitable institutions, because all forms are supplied by the Supervising Authority free of charge. The matter appears to be one which I think might receive the consideration of the Central Midwives' Board.

The following Table shows the condition of child and presentation, with period of pregnancy, in the 131 cases notified on Form C. by Midwives in private practice.

Condition of Child and Presentation.	PERIOD OF PREGNANCY.					Total.
	Nine Months.	Eight Months.	Seven Months.	Six Months. and under.	Not specified	
Macerated ...	38	14	20	1	...	73
Not Macerated	34	8	11	3	2	58
Vertex ..	52	14	16	...	2	84
Breech ...	5	...	5	...	...	10
Footling ...	2	...	3	...	...	5
Transverse ...	2	...	...	...	...	2
No information	11	8	7	4	...	30
Total ..	72	22	31	4	2	131

Form D. —Seven notices on Form D of having laid out a dead body were received.

PRACTICE BY UNCERTIFIED WOMEN.

Year	No. of Cases investigated	Result of Investigation				Action Taken			Result of Prosecution
		Charge not sustained	Emergency Confinements		Charge sustained	None	Warned	Prosecuted	
			Genuine	Doubtful					
1912	7	3	—	—	4	3	4	—	—
1913	10	3	1	4	2	2	8	—	—
1914	6	1	1	—	4	2	3	1	Fined 10s.& costs

The following cases of alleged practice by uncertified women were enquired into during the year :—

(1) A complaint was received that an uncertified women, Mrs. H —g, was practising as a midwife and enquiry showed that the complaint was justified : she was warned not to repeat the offence.

(2) Enquiry was made into the circumstances of attendance at a confinement by Mrs. H —n, an uncertified woman : the case was found to be one of “ emergency.”

(3) A birth which had been registered was found by a Registrar, when inspecting birth notifications, not to have been notified and he informed us that the mother was said to have been attended by a certain midwife. When asked why she had failed to notify, the midwife replied she had not confined the woman. Futher enquiry showed that this was true, although she had been engaged for the case, for another uncertified person, Mrs. S —y, who was engaged to look after the house while the mother was laid by took charge of the confinement saying there was no need to fetch the midwife as “ everything was going on well ” : she was paid for her

attendance. This woman was warned that she was acting illegally and cautioned. The above case shows the advantage that may attach to the power which the Registrars have of consulting the Birth Notification Records.

(4) Another case of attendance by an uncertified woman, Mrs. J—s, came to light in a somewhat similar manner and she was warned not to repeat the offence.

(5) An unqualified woman, Mrs. M—n, had asked in October, 1912, how to become qualified, and had then been cautioned not to act as midwife till qualified. In 1913, evidence was obtained that she had since then attended several cases and received payment and the matter was reported to the Supervising Authority with a view to prosecution. That Authority instructed the Inspector of Midwives to interview the woman and advise her that she must cease to practise as a midwife unless she became qualified. She was accordingly interviewed and warned, at the same time being informed that there was no reason whatever against her acting as monthly nurse under a doctor: she said she quite understood what was meant. The doubt expressed in the Report for 1913, as to “whether this second warning will be more effectual than the first,” has been justified, for evidence came to hand that on 4th March, 1914, she attended a confinement for profit. The whole circumstances were again laid before the Supervising Authority, who instructed the Town Clerk to take proceedings. The case was heard on 15th June, when the woman pleaded guilty and was fined 10/- and costs.

(6) A complaint was received from a medical man of the conduct of a “certified midwife,” at a certain case in which she was nursing under him. This

woman, Mrs. F-----s, is not certified; at all events her name does not appear in the Roll, and the doctor was informed that this being so the Supervising Authority has no control over her.

During the year fairly continuous supervision has been exercised over the practising midwives and each has been visited at least once a quarter,

There has been marked improvement in the conditions now existing over those prevailing at the end of 1912.

The advantage to the Public Health of a body of properly trained and intelligent midwives is great, and so far as their work tends to the preservation of infant life it is now specially important. They are also, I think, in the future destined to play an important part in making schemes for Maternity and Child Welfare successful, and their hearty co-operation in any such scheme adopted in the City will have to be sought. Some ways in which they can assist in a Maternity and Child Welfare Scheme are indicated in the report on the Notification of Births Act.

JOHN C. HEAVEN, D.P.H.,

Acting Medical Inspector of Midwives.

NOTIFICATION OF BIRTHS ACT, 1907.

REPORT FOR THE YEAR 1914.

The following Report deals with the second complete year of work under this Act, which was adopted by the Council at the end of 1911, and the administration of which commenced in October, 1912.

Notifications.

The total number of notifications in 1914, is less than in 1913, by 242, but this is accounted for by the fact that the number of registered living children in 1914, is less by 478 than in 1913: the proportion of notifications of living children during the past year is greater than in the previous one.

As will be seen from the following Table (I.), 6,675 notifications were received:—6,363 living, 312 stillborn; of these the males numbered 3,394 (165 stillborn), females 3,281 (147 stillborn) and there were 82 sets of twins, none of triplets. The Table further shows for the years 1913 and 1914, the number of births registered, the number notified, and by whom the proportion of notifications to registrations, and also the number registered and notified in each Registration Sub-District.

TABLE I.

YEAR	BIRTHS			NOTIFIED BY				SEX		SETS	BIRTHS REGISTERED & NOTIFIED IN EACH REGISTRATION SUB-DISTRICT.																																		
	NOTIFIED			DOC-TORS	MID-WIVES	FATH-ERS	LIVING	STILL-BORN	TWINs		TRIPL-ETS	Ashley	Bedmin-ster		Central		Clifton		Knowle		St. George		St. Philip		Stapleton		Westbury-on-Trym																		
	REGISTERED	STILLBORN	TOTAL										Per centage of Births Registered	LIVING	STILLBORN	LIVING	STILLBORN	REGISTERED	LIVING	STILLBORN	REGISTERED	LIVING	STILLBORN	REGISTERED	LIVING	STILLBORN		REGISTERED	LIVING	STILLBORN	REGISTERED	LIVING	STILLBORN	REGISTERED	LIVING	STILLBORN									
1913	8261	6611	306	6917	80	02	1472	77	4639	215	500	14	3342	3268	178	128	98	2	750	542	37	1628	1362	62	935	790	47	701	519	21	444	202	7	1524	1310	61	1391	1261	45	607	397	19	280	228	7
1914	7783	6363	312	6675	81	75	1484	82	4467	227	412	3	3229	3134	165	147	82	—	748	536	15	1532	1268	65	951	810	43	660	517	45	429	176	3	1429	1241	64	1316	1219	51	469	391	14	249	205	12

Action following on Notification.

This has necessarily been inadequate, owing to insufficient staff, and the loss of one of the two Health Visitors who was called up for service, made it still more inadequate until a temporary substitute was obtained. It is desirable that one visit at least should be paid to every case notified by a midwife, to other cases where a doctor reports visiting advisable; and, in those notified by relatives, where it seems necessary. The rule for visits is at present :—

Midwives' cases, 3rd day.

Institution „ 10th day.

Doctors' „ (only on special request).
14th day.

It has been quite impracticable to carry out even one visit in accordance with the above rule, and no less than 1,063 cases of the 4,496 which should have been seen (including 19 where early death occurred) had to be left entirely unvisited, because the two Health Visitors, through extremely keen and hardworking, cannot get through more than a certain amount of work; time alone will not allow them.

Particular attention is paid to the visiting of Primiparæ as the importance of instructing young mothers in the right way of dealing with infants is specially desirable. The number of Primiparæ during 1914 was 540: of whom 513 were confined at full term and 27 prematurely.

On calling, the Health Visitor collects certain information with regard to the mother and child, gives advice on matters where it seems called for, and leaves a card of instructions as to infant feeding and management. Further instructions in leaflet form are also left where artificial feeding is unfortunately necessary. In all cases, however, the importance of breast-feeding is emphasised, and mothers are encouraged to adopt it.

Cases Visited.

The following Table gives the number of visits made.

TABLE II.

Total cases visited	Once	Twice	Three Times	Four Times	Five Times	Six Times	Seven Times	Eight Times	Nine Times	Over Ten Times	Total No. of visits
3,414	2,959	237	108	55	27	13	4	2	5	4	4,334

Enquiries were not made in 196 cases for the following reasons :—

In 49 instances objection to visitation by the Health Visitors was raised by parents; in 51 the Health Visitor, on calling, considered it undesirable to make enquiries—in most instances because a doctor was still in attendance; in 46 cases the mother and child were found to be out; and in 50 the child was found to have died before the visit.

CONDITION AT BIRTH.—The following Table setting out the condition of the child's health at birth is compiled from information given by the mothers and midwives and the observations of the Health Visitors, and shows that all, save a comparatively few, babies enter life in a fair position to survive. The great mortality among infants appears therefore to be largely due to improper treatment after birth.

TABLE III.

CONDITION AT BIRTH.	Full Time.	Premature.	Totals.
Healthy ...	3,035	60	3,095
Fairly Healthy ...	38	12	50
Weakly ...	38	35	73
Not ascertained ...	—	—	196
			3,414

WEIGHT.—Children weighed, 2,761 (Full-time, 2,671 ; premature, 90) ; 243 were not weighed owing to the mother considering it “unlucky.”

The following table summarises the results of weighing.

TABLE IV.

Weighed in—		Number Weighed	Lowest Weight.	Highest Weight.	Average Weight
Full Time	First Week	1,099	3½ lbs.	12 lbs.	8·15
	Second Week	960	4½ lbs.	12½ lbs.	8·65
	Third Week	612	3½ lbs.	12½ lbs.	8·81
Premature	First Week	35	2½ lbs.	7½ lbs.	5·22
	Second Week	33	4 lbs.	8½ lbs.	5·75
	Third Week	22	4 lbs.	9¼ lbs.	5·72

FEEDING.—The following table gives the method of feeding found in use at first visit : *i.e.* at various periods up to 21st day.

TABLE V.

Method of Feeding	Full Time.	Premature.	Total.
Breast Fed . . .	2,899	89	2,988
Partially Breast Fed	57	2	59
Bottle Fed	150	14	164
Spoon Fed	5	2	7
Total ...	3,111	107	3,218
Irregular feeding noted, and instructions given, in 430 cases (419 full-time ; 11 premature).			

From the above Table V. it will be seen that of the 3,218 cases in which particulars were obtained, no less than 2,988 were entirely breast-fed, as compared with 164 entirely bottle-fed; 59 infants were fed from breast and bottle. In those cases where a spoon was used for feeding there was some special reason, such as hare-lip or cleft-palate, or extreme weakness on the part of the child.

When enquiries under the Act were first commenced it was found that the number of tube bottles used for artificial feeding considerably exceeded the number of boat bottles, but in 1913 the proportion was reversed, and in 1914 the boat bottles outnumbered the tube by 141—182 to 41. This is a satisfactory change.

It would be an excellent thing if the use of tube bottles were prohibited, as it is in some countries, and that harmful abomination, the “comforter” or “dummy,” might with advantage be included in the prohibition. Failing this however, it would be very helpful if your Authority followed the example of the Aberdeen Health Department and exchanged tube bottles for boat bottles, free of charge, to any mother applying for one.

The proportion of breast to bottle-fed infants is high, and is probably due to the fact that the information was obtained shortly after birth. If it had been possible to follow the cases up, it would very likely have been found that the breast was discontinued for the bottle earlier than it should be, and this is one direction in which ability (dependent on sufficient staff) to keep cases under observation is desirable, because the mortality in breast-fed infants is very much less than among the bottle-fed.

Foods other than fresh cow's milk found in use at the time of first visit were :—

Condensed Milk, 46.

Patent Foods, 15.

Milk Foods and Powders, 7.

Besides the above, other articles given, the use of which was of course, prohibited, were porridge, biscuits, and the time-honoured butter and sugar. It is probable that in many other instances improper foods were given, but their use concealed.

In a few instances, where artificial feeding had to be adopted, some form of dried milk was supplied for a time by the Department, and the results of its use were very satisfactory. The use of dried milk for artificial feeding appears to possess advantages over fresh cows milk or condensed milk. In the first place it is freer from germs to start with, and as it can be kept well covered in its tin is less liable to contamination by dust and flies. In itself it does not attract flies in the same way as ordinary milk : condensed milk is a flies paradise and is also liable to contamination from the dirty fingers of other children who, if they get the chance, are fond of sticking them into the milk, sucking them, and repeating the process. I think the Authority would be doing good work if they sanctioned the stocking of an approved milk powder, and its issue by the Department at cost price to suitable cases on the recommendation of the Health Visitors or other responsible persons. I understand that certain of the Schools for Mothers are acting in this way and increased facilities for the use of such food will I think be beneficial.

In only 258 cases was the child, on first visit, sleeping separately from the mother. Eight mothers were found up prematurely—one on the fourth, one on the fifth, one on the seventh, three on the eighth, and two on the ninth day.

As an incidental result of the visits paid, 46 references were made to the Chief Inspector of Nuisances, pointing out conditions requiring attention; action was taken by him, and the conditions remedied in 38 of these cases.

The following Tables (VI., VII. and VIII.) show various ailments of mother or child, either notified by midwives on Form A, or discovered by the Health Visitors, and defects and injury at birth noted by the Health Visitors.

TABLE VI.

AILMENTS OF MOTHER.		
<i>Noted on C.M.B. Form A, by Midwife.</i>		
Abnormal Presentation ..	29	
Prolonged or obstructed Labour ..	34	
Instrumental Assistance ..	12	
Uterine Inertia ..	5	
Contracted Pelvis ..	16	
Adherent or Retained Placenta ..	18	
Hour-glass contraction of Uterus ..	1	
Placenta Prævia ..	9	
Hæmorrhage—Ante-Partum ..	9	
Do. Post-Partum ..	4	
Ruptured Perinæum ..	47	
Pyrexia ..	11	
Premature Birth ..	3	
Stillbirth ..	2	
Fainting after delivery ..	2	
Prolapse of Cord ..	2	
Vomiting ..	4	
Eclampsia ..	1	
Rigor ..	1	
Edema of Vulva ..	1	
Hysteria ..	2	
Bronchitis ..	2	
Pleurisy ..	1	
Pneumonia ..	1	
Pain in Side ..	3	
Do. Head and Legs ..	4	
Do. Breast ..	1	
Do. Groin and Leg ..	1	
Do. Abdomen ..	3	
Anæmia ..	3	
Puffiness of Face and Legs ..	1	
Swelling in Legs ..	2	
Phlebitis ..	3	
Weakness ..	7	
Asthma ..	1	
Debility ..	4	
Dropsy ..	1	
Bright's Disease ..	2	
Colds ..	5	
Not definitely stated ..	1	
Total ..	259	
<i>Noted by Health Visitor.</i>		
Respiratory System ..	9	
Anæmia ..	6	
Pyrexia ..	16	
Breast trouble ..	14	
Ulcerated Leg ..	1	
Varicose Veins ..	2	
Rheumatism ..	1	
Hysteria ..	1	
Pain and swelling in Leg ..	6	
Pains in Head ..	12	
Do. Right Groin ..	1	
Do. Back ..	1	
Do. Abdomen ..	1	
Do. Side ..	2	
Weakly ..	11	
Not doing well ..	6	
Total ..	90	

TABLE VII.

AILMENTS OF CHILD.

<i>Noted on C.M.B. Form A, by Midwife.</i>			<i>Noted by Health Visitor.</i>		
Premature Birth	...	16	EYES—		
Feebleness	...	36	Discharging	...	139
Inanition	...	1	Swollen	...	2
Convulsions	...	6	Inflamed	...	2
Asphyxia	...	3	Weak	...	26
Dyspnœa	...	4	Photophobia	...	1
MALFORMATIONS—			RESPIRATORY—		
Eyes	...	2	Bronchitis	...	1
Imperforate Anus	...	1	Inflammation Right Lung	...	1
Spina Bifida	...	3	Dyspnœa	...	3
Tongue-Tie	...	5	Coughs and Colds	...	16
Hare-Lip	...	1	DIGESTIVE—		
Cleft Palate	...	1	Thrush	...	186
Anencephalic Monster	...	1	Jaundice	...	30
Not stated	...	1	Vomiting	...	1
EYES—			Constipation	...	15
Weak	...	17	Diarrhœa	...	2
Inflamed	...	38	Green Motions	...	5
Swollen	...	2	SKIN—		
Discharging	...	213	Red Gum	...	228
Ophth. Neon.	...	8	Eczema	...	1
Hæmatoma	...	1	Septic Sores, Eruptions, etc.	...	10
Jaundice	...	7	Rash	...	9
Indigestion	...	1	Indefinite	...	1
Moaning	...	3	Snuffles	...	22
Colds	...	5	Specific	...	2
Dermatitis	...	1	Feebleness	...	3
Rash	...	6	Inanition	...	14
Epistaxis	...	1	Cyanosis	...	5
Swelling in Elbow	...	1	Nævis	...	1
Do. Head	...	1	Cephal-hæmatoma	...	1
Blisters	...	2	Brain Trouble	...	1
Edema of feet and legs	...	1	Convulsions	...	4
Not definitely stated	...	1	Inguinal Hernia	...	1
			Circumcision Required	...	3
			Enlarged Neck Glands	...	3
			Breasts Swollen	...	1
			Measles	...	1
			Chickenpox	...	1
			Various	...	5
Total	...	390			747

TABLE VIII.

DEFECTS AND INJURY AT BIRTH NOTED BY HEALTH VISITORS.				
Tongue-tied	...	...	...	41
Cleft Palate	...	.	...	2
Hare-lip ...	...	...	..	2
MALFORMED—				
Feet or Legs	...	...	...	4
Hands or Arms	...	...	...	3
Eyes ...	...	...	...	1
Only one Leg (2 Toes): Arm disfigured			...	1
Contracted Finger each Hand			...	1
Webbed Toes	...	...	...	1
Imperforate Anus	...	...	...	1
Forceps injury	...	...	...	1
Fractured Arm	..	...	..	1
Bruised Face and Eyes		...	...	2
Total				61

On 300 occasions the Health Visitor advised that a doctor should be sent for, to see the mother or child, and in most instances the advice was taken. The midwife in attendance on the case was also advised on 5 occasions that special attention was required on her part.

EYE DISEASES IN INFANTS.—Special attention is given by the Health Visitors to the condition of the eyes of all infants visited. Cases of Ophthalmia Neonatorum are visited on the day of receipt of notification, and cases of other eye trouble are seen as soon as possible after they are reported. All are kept under observation till they terminate, and medical advice, either private or institutional, is recommended: in some urgent cases the child has been taken to the institution by the Health

Visitor The Health Visitors carry Argyrol Solution which they use in bad cases pending treatment by doctor or institution; also eye droppers, a separate one being used for each eye and destroyed immediately after use. They also carry packets of cotton wool squares for bathing the eyes and of boric crystals for lotion. A supply of these is given to poor persons in charge of infants, with instructions as to the proper mode of dealing with the eyes, and the importance of carefully carrying out instructions, lest injury to the eyes should result, is emphasised. In several instances, however, there appeared to be almost wilful neglect of treatment advised, and in one very marked case a warning letter was written to the parent. Careful record of every eye case is kept on special eye cards. The total number of visits paid to eye cases was 1,217.

The total number of Eye cases dealt with during the year was 421, including :

Notified Ophthalmia Neonatorum	70
Other Eye affections	351
	<hr/>
	421

These cases came under notice from the following sources :—

Reported first by Health Visitors	...	170
(Including 11 Ophthalmia Neonatorum).		
Reported first by Midwives	...	232
Reported first by Doctors	...	19

Dealing first with the 351 minor cases of Eye affection not notified as Ophthalmia Neonatorum, the following Table gives certain particulars as to conditions noted :—

TABLE IX.

Not Known	Weakness	Inflam- tion	Swelling	DISCHARGE				EYE AFFECTED		TREATED AT		RESULT			
				Watery	Mucous	Straw- coloured	Pus	One	Both	Home	Institution	Recovery	Death be- fore re- covery	Not known	
2	29	11	9	183	8	48	61	149	202	301	50	335	10	6	

It is of course impossible to say whether any of the above cases might have developed into serious Ophthalmia if not supervised, but probably some would have done so.

OPHTHALMIA NEONATORUM. The following Tables (X., XI., XII., XIII.), give full details of the 70 cases notified since 1st April. As previously stated each case is visited on the day notification is received and all cases treated at home (including Institution Out-patients) are followed up by the Health Visitors to see that instructions given are carried out. As will be seen from the Tables 36, or rather over half the cases, received treatment at Institutions, nine being admitted as In-patients. Twenty-nine received medical treatment at home and of the remaining 5, four were treated by the Health Visitors. It is satisfactory to note that in no single instance is there record of any permanent injury to the eye; probably this is due to the action taken to secure treatment.

No information as to causation in these cases is available and any reliable information would be difficult to obtain. In eight instances the child was born before the arrival of the doctor or midwife, one was a face presentation, and in one there was a history of Ophthalmia in previous children.

TABLE X.

TOTAL CASES NOTIFIED.															Notified by		Cases in each Registration Sub-District.	Monthly Incidence												Sex										
DOCTORS															MIDWIVES	DOCTORS AND MIDWIVES	ASHLEY	REDMINSTER	CENTRAL	CLIFTON	KNOWLE	ST. GEORGE	ST. PHILIP	STAPLETON	WESTBURY	PUBLIC INSTITUTIONS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	MALE	FEMALE
70	34	21	15	5	13	17	3	3	6	16	2	4	1	Regulations not in force.	15	16	6	10	4	9	6	3	1	35	35															

TABLE XI.

Birth attended by										Case first reported by Health Visitor	Eyes Affected				TYPE				CHARACT'R OF DISCHARGE				TREATED AT				
Doc-tor		Mid-wives		UNQUALIFIED ATTENDANT	LEGITIMATE	ILLEGITIMATE	NOT KNOWN	RIGHT ONLY	LEFT ONLY		BOTH EYES	NOT KNOWN	MILD	MODERATE	SEVERE	? NOT OPHTHALMIA	PURULENT	THIN YELLOW	WATERY	NONE SEEN	UNDER DOCTOR	Home		Inst.			
PRIVATE INSTITUTIONS		TRAINED	NOT TRAINED																			Private INSTITUTION					
9	—	27	23	10	1	59	6	5	11	4	8	57	1	30	19	13	8	53	5	8	4	29	5	1	4	9	27

TABLE XII.

Day of Development after Birth.													Days between onset and visit by Health Visitor.												
													VISITED WITHIN												
1ST DAY	2ND DAY	3RD DAY	4TH DAY	5TH DAY	6TH DAY	7TH DAY	8TH DAY	9TH DAY	10TH DAY	11TH TO 15TH DAY	16TH TO 21ST DAY	NOT KNOWN	24 HOURS	2 DAYS	3 DAYS	4 DAYS	5 DAYS	6 DAYS	7 DAYS	8 DAYS	9 DAYS	10 DAYS	OVER 10 DAYS	NOT KNOWN	NOT VISITED
9	9	9	9	8	6	3	4	2	4	6	—	1	6	17	11	7	11	5	2	3	1	2	3	1	1

TABLE XIII.

Duration of Disease.											Result.																							
UNDER 1 WEEK		UNDER 2 WEEKS		UNDER 3 WEEKS		UNDER 4 WEEKS		UNDER 5 WEEKS		UNDER 6 WEEKS		UNDER 7 WEEKS		UNDER 8 WEEKS		UNDER 3 MONTHS		DEATH BEFORE RECOVERY		NOT KNOWN		COMPLETE RECOVERY			Injury			Blind- ness			DEATH BEFORE RECOVERY		NOT KNOWN	
3	12	15	5	2	6	5	3	6	5	2	63	—	—	—	—	—	—	—	—	—	5	2												

VISITED BY HEALTH VISITOR.																							
TWICE		THREE TIMES		FOUR TIMES		FIVE TIMES		SIX TIMES		SEVEN TIMES		EIGHT TIMES		NINE TIMES		TEN TIMES		OVER 10 TIMES		NOT VISITED		TOTAL VISITS	
20	15	14	7	5	2	2	2	2	—	2	1	282											

Co-operation with Public Agencies.

There are existing in the City a number of agencies concerned with the provision of help and advice to lying-in women and mothers. In my last Annual Report I stated that "such Associations as the Schools for Mothers are worthy of all possible encouragement and assistance, they are doing excellent work." This work has been continued and I am pleased to say that the co-ordinated working arrangement arrived at in 1913, has proved satisfactory during the past year and this Department has received much assistance from the various Schools for Mothers of which there are now ten instead of seven as in 1913. Of these 10, four of the largest have commenced the work of Maternity Centres as defined in the Circular Letter of the Local Government Board of 30th July, 1914.

During the year 374 cases (either primiparæ, or mothers who appeared specially to need instruction) were referred to the Schools for Mothers. One school to which a large number of cases was referred has unfortunately been unable to take any action on the references owing to lack of Visitors and press of work, but as will be seen from the Report of Schools (page 133) 53 mothers subsequently attended one or other school, and 193 were visited at home by the voluntary visitors. The names of all primiparæ residing within the area of any school are referred there for possible supervision, as right methods adopted with the first child will be of advantage to future children.

Other agencies have also kindly given assistance—

The Civic League had eleven cases referred to them, where on account of poverty or other reasons some special help in the way of money or food appeared to be required for the welfare of the mother or child. In nine cases help was given. The number thus referred is less

than in 1913, but since the outbreak of the war no necessity for reference has arisen save in one case which was dealt with by the Prince of Wales War Relief Fund Committee.

In one case the Health Visitor on calling after a confinement found a child in the family suffering from pneumonia after measles. It was being unavoidably neglected and on representation of the Health Visitor the Parish Nurse undertook to attend to the case.

One case was referred to the Society for Prevention of Cruelty to Children, as it appeared possible their intervention might be required.

Thanks are due to all the above agencies for their assistance.

The Working of the Act.

The opinion expressed in previous reports, namely that the Staff provided is utterly inadequate, and that comparatively little advantage will be derived by the City from this Act until this department is properly staffed, has been strengthened by the experiences of the past year.

Increase in the number of Health Visitors is required for the following reasons :—

1. No less than 1,063 cases where visiting was desirable had to be left entirely unvisited in 1914.
2. Cases which are visited cannot be kept under observation, only one visit being possible, save in very exceptional instances.
3. Such partial work is of little good, and the conditions of working throw too great a strain on the two Health Visitors.

4. In their Circular Letter of 30th July, 1914, on "Maternity and Child Welfare," the Local Government Board rightly points out that the first essential step towards the accomplishment of the work contemplated in the Letter is "the appointment of an adequate staff of Health Visitors."

In previous reports I have stated that in my opinion the staff should consist of :

Medical Head.
2 Superintendent Health Visitors.
8 District Health Visitors.

This opinion was based on the idea that children should be kept under observation up to the end of the first year of life. The Local Government Board, however, now desires that each child should be "systematically visited at home," from birth "up to the age when they are entered on a school register," and throws other work, such as the home visiting of expectant mothers, on the shoulders of the Health Visitors. I therefore now consider that the number of District Health Visitors should be at least 10, instead of the 8 previously suggested. Even with this staff there will be ample room for the work of those agencies, such as the Schools for Mothers, which already exist or may hereafter be formed, and whose assistance during the past requires grateful acknowledgment.

Circular Letter of the Local Government Board, on "Maternity and Child Welfare." (30th July, 1914.)

This Letter suggests a complete scheme for dealing with the above subject and opens up an immense field of work.

In September the Medical Officer of Health presented a special report on this Circular to the Health Committee

showing what steps had already been taken by the Sanitary Authority and Voluntary Agencies to deal with points of the Circular and suggested a Conference of the various bodies concerned in the work to enable the Health Committee to formulate a complete scheme and secure the co-operation of the voluntary agencies and Institutions: the report also pointed out the necessity of appointing an adequate number of Health Visitors. In November the Medical Officer of Health was requested to make enquiry as to the schemes adopted by other towns. No further action was taken up to the end of the year, but the matter will not be lost sight of.*

The evolution of a complete scheme will require very careful consideration and seems to involve, in some directions, action which has not previously been thought of by the Sanitary Authority. For instance: the whole of the arrangements for Ante-natal work are dependent on official knowledge of pregnancy and, failing the introduction of notification of pregnancy, it appears to me that such knowledge can only be obtained by the voluntary co-operation of Midwives and the Maternity Departments of Institutions. It is to these sources that as matters stand we must chiefly look for assistance in obtaining Ante-natal supervision of expectant mothers. How is this assistance to be obtained? A tentative beginning in this direction has been made during the latter part of the year: the Deputy Inspectors of Midwives were instructed, when paying their visits of inspection, to broach the subject to the midwives and point out that by advising their clients to apply at one or other of the existing Maternity Centres for medical examination and advice they, and probably the unborn children, would benefit, and the midwife would know whether any, and what, difficulty was likely to arise during the confinement and thus be forearmed. I understand

* Since writing the above the Health Committee has decided to increase the number of Health Visitors to seven.

that the midwives have generally approved of the suggestion. Such action on the part of the midwives would however be entirely voluntary and the mothers might or might not apply at the Maternity Centre and the number brought under observation would be comparatively small; but were the Sanitary Authority to institute a scheme for guarantee of fees of medical men called in by midwives, the name and address of each expectant mother, for whom the midwife paid to the fund, would necessarily be made known to the Authority, and they could then be visited and advice secured for them. I have already alluded to such a Guarantee Fund in the report on the Midwives Act, and I think its establishment worth serious consideration. Other mothers might be reached if the Maternity Departments of the various Public Institutions would agree to send the names and addresses of women applying to them for attendance during confinement.

This is not the place to formulate a Scheme, and I have written the above only to show how the subject bristles with difficulties and how carefully each heading of the Circular will have to be considered. I trust, however, that the coming year will see the adoption of a complete Scheme and the provision of an adequate staff to work it.

JOHN C. HEAVEN, D.P.H.,

Acting Medical Inspector of Midwives.

Summary of Work by Health Visitors.

MIDWIVES ACT, 1902.				1914
No. of Routine Inspections of Midwives	..	..	..	210
„ useless Visits (i.e. Midwives out, &c.)	..	..	..	238
„ Visits in connection with special enquiries	..	..	..	13
Total Visits paid under Act	..	..	..	461
No. of defective conditions noted at Routine Inspections	..	..	..	62
„ Special enquiries	..	..	..	8
(a) <i>re</i> Certified Midwives	..	..	..	2
(b) <i>re</i> Illegal Practice	..	..	..	6
NOTIFICATION OF BIRTHS ACT, 1907.				
No. of Notified Births Visited	..	..	..	3,414
„ „ „ Revisited	..	..	..	455
Total Visits paid under Act	..	..	..	4,334
No. of Notified Births Visited in ASHLEY Registration Sub. Dist.				126
„ „ „ „ BEDMINSTER	..	..	..	717
„ „ „ „ BRISTOL CENTRAL	..	..	..	455
„ „ „ „ CLIFTON	..	..	..	233
„ „ „ „ KNOWLE	..	..	..	62
„ „ „ „ ST. GEORGE	..	..	..	793
„ „ „ „ ST. PHILIP	..	..	..	849
„ „ „ „ STAPLETON	..	..	..	109
„ „ „ „ WESTBURY-ON-TRYM	..	..	..	70
No. of Infant Feeding and Management Cards left	..	..	..	3,115
„ Hand Feeding Instruction Pamphlets left	..	..	..	187
„ Ailments, Defects and Injury at Birth reported by Health Visitors	..	..	..	898
(a) In the Mother	..	..	..	90
(b) In the Child	..	..	..	808
„ Occasions Doctor or Institution Advised	..	..	..	300
ALLIED WORK, &c.				
No. of Visits to Cases of Ophthalmia Neonatorum	..	..	..	14
(Infants not visited under Notification of Births Act).				
Total Visits to Notified Cases of Ophthalmia Neonatorum	..	..	..	282
„ „ „ „ Puerperal Fever	..	..	..	26
No. of Visits for other special purposes	..	..	..	5
Total Visits paid during year by Health Visitors	..	..	..	4,840

JOHN C. HEAVEN, D.P.H.,

Acting Medical Inspector of Midwives

BRISTOL SCHOOLS FOR MOTHERS,

During 1914, three additional Schools were opened, making a total of 10. The new Schools are :—

- (1) Bristol North, held at 223 Newfoundland Road.
- (2) Moorfields, held at 28 Chapter Street, Dean Lane.
- (3) Shirehampton & Avonmouth, held at the Mission Hall, Shirehampton.

Each of these Schools is affiliated to the Infant Welfare Association, and complies with the Association's regulations, i.e., a Medical Officer is employed for Infant Consultation, and all instruction is given by qualified Teachers.

But for the War it is probable that two further Schools would have been started, one in Kingswood and a second for Bedminster. The impossibility of securing the services of additional doctors and nurses arrested attempts made in this direction.

The Schools continue to work on the same plan as heretofore.

Systematic instruction in Health and Home Management, and simple lectures on Infant Care and Mothercraft are given to all women attending: special Maternity classes are held for expectant mothers.

Individual advice and instruction is always at hand for any member who needs it. The last named method of teaching has been found particularly acceptable to the women. Many poor mothers are anxious to do their best for their offspring but,—possessing little knowledge and less means—find themselves face to face with a most difficult task. To bring their problems to someone who can give friendly, *reliable* advice is of the greatest value to them. As one mother lately remarked, “I could not do without the school, there is so much I have

to learn, and whatever difficulty I have there is always someone at hand here who can put me right."

Efforts have been made to secure the attendance of more *expectant* mothers. Four Schools are now working as Maternity Centres on the lines laid down by the Local Government Board. This branch of the work needs extending: at present difficulty is experienced in getting into touch with expectant mothers; it is hoped with more assistance from the registered midwives this may be overcome.

The supervision of infants has been extended to that of children from one year old up to school age. This is an important advance, as in this way we aim at bridging over the hiatus which has previously existed in Bristol between Infant Care Work and that of the School Medical Service. In future it should be possible to carry out a complete system of child medical care:— i.e., care of the expectant mother at the Maternity Centre, care of the infant and child under five at the School for Mothers or Infant Consultation Centre, and care of the school child by the School Medical Officer. It is obvious that such work can only be carried out at present in certain areas, owing to the limited number of Schools and Maternity Centres. Given additional Centres and further assistance from official Health Visitors the whole of the poorer parts of the city could be covered.

During 1914, a total of three hundred and fifteen (315) cases were referred to the Secretaries of the various Schools from the Municipal Health Office. Only 193 of these were visited by the voluntary visitors. One School (Bedminster) is unable to undertake any of these cases owing to lack of visitors, and to the large number of women already on the books. Fifty-three of the Health Office cases subsequently attended the Schools nearest

their homes; others who did not attend were visited frequently and received friendly advice and help in the care of their infants

The following Table shows the number of mothers and infants supervised during 1914.

NAME OF SCHOOL	No. of women on books.	No. of infants and children under 5.	No. of expectant mothers.	No. of home visits paid.	No. of Cases referred to School from Health Office.	No. of last who subsequently attended.
Broad Plain... ..	116	100	43	145	80	11
Bedminster	186	226	23	599	cases not undertaken	—
Hotwells and St. Augustine	97	95	15	828	20	10
(a) Moorfields	36	63	no record	93	none	—
(b) North Bristol	33	32	10	43	17	10
(c) Shirehampton and Avonmouth	58	27	no record	no record	12	5
Southmead	48	26	5	„	2	1
St. Lawrence	40	record mis-laid	3	„	8	no record
University Settlement	103	147	no record	616	103 only 53 visited	16
Westbury	44	14	—	237	1	—
TOTALS	761	730	99	2561	243	53

(a) Opened Oct., 1914. (b) Opened Sept., 1914. (c) Opened Sept. 1914

F. MARION TOWNSEND.

TABLE B. Showing Population, Births, Marriages and Deaths, and Birth and Death Rates (uncorrected) in Bristol for the 25 Years, 1890—1914.

	Estimated Population.	Registered Births	*Marriages in the District of the Bristol Union.	DEATHS.			ANNUAL RATES.					
				Total Deaths at all Ages.	Under 1 Year.	Over 1 and Under 5	Over 60.	In Public Institutions	Birth Rate per 1,000	Death Rate per 1,000	Infantile Mortality to 1,000 Births	Zymotic Rate.
1890	220,442	6,634	1,033	4,532	991	597	1,265	730	30.0	20.5	149.4	2.1
1891	222,049	6,725	937	4,631	972	603	1,371	815	30.3	20.8	144.5	1.7
1892	223,592	6,563	973	4,331	953	634	1,197	776	29.3	19.3	145.2	2.0
1893	225,028	6,788	955	4,241	959	411	1,283	851	30.1	18.8	141.2	1.6
1894	226,578	6,393	920	3,888	848	524	1,077	769	28.8	17.1	148.3	2.0
1895	228,139	6,622	846	4,108	935	414	1,321	837	29.0	18.0	141.1	1.1
1896	230,626	6,537	863	3,960	908	476	1,130	793	27.8	16.8	138.9	1.8
1897	232,242	6,514	884	3,988	949	434	1,195	821	28.0	17.1	145.6	1.8
1898	316,900	9,061	837	5,441	1,491	795	1,455	881	28.5	17.1	164.5	2.6
1899	320,911	9,336	2,714	5,844	1,467	567	1,781	1,049	29.0	18.2	157.1	1.8
1900	324,973	8,972	2,839	5,397	1,185	673	1,561	968	27.6	16.6	131.9	1.8
1901	329,086	8,889	2,786	5,249	1,159	558	1,379§	1,039	27.0	15.9	130.4	1.6
1902	334,632	9,368	2,827	5,905	1,225	965	1,351	1,173	27.4	17.3	130.7	2.7
1903	338,895	9,239	2,738	4,822	1,075	467	1,189	1,094	27.2	14.2	116.3	1.1
1904	343,204	9,145	2,894	5,347	1,222	545	1,386	1,162	26.6	15.5	133.7	1.6
1905	358,515	9,649	2,870	5,286	1,182	623	1,336	1,197	26.9	14.7	122.4	1.6
1906	363,223	9,372	2,793	5,299	1,196	495	1,414	1,188	25.8	14.5	127.6	1.6
1907	367,979	8,915	3,001	4,897	900	327	1,500	1,211	24.2	13.3	100.9	0.8
1908	372,785	8,752	2,806	5,230	1,102	509	1,522	1,247	23.0	13.7	125.8	1.2
1909	377,642	8,507	2,670	4,869	860	375	1,518	1,288	22.5	12.8	101.0	0.9
1910	382,550	8,258	2,670	4,523	746	293	1,474	1,283	21.5	11.8	90.3	0.6
1911	357,509	7,751	2,763	5,537	1,107	558	1,678	1,460	21.0	15.4	142.8	2.2
1912	359,400	7,681	2,933	4,894	789	425	1,663	1,282	21.3	13.6	102.7	0.9
1913	361,362	8,261	2,953	4,793	806	319	1,603	1,357	22.4	13.0	97.5	0.8
1914	363,312	7,783	3,138	5,015	789	374	1,658	1,457	21.4	13.8	101.3	0.9

* Previous to 1899 this includes the Registration Sub-Districts of St. Mary Redcliffe, Castle Precincts, St. Paul, St. James, and St. Augustine only.

† The Marriages for 1899 were for the first time given for an area co-extensive with the whole enlarged city.
§ Over 65, according to the new age grouping in the L.G.B. Tables.

Showing Number of Deaths from Zymotic Diseases in Bristol during the 59 years 1856-1914.

	COMBINED DISTRICTS. Population—Census, 1851—181,799.										COMBINED DISTRICTS. Population—Census, 1861—201,971.										POPULATION OF BOROUGH. Census, 1871—182,552.										ESTIMATED POPULATION OF BOROUGH.						
	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	[Census 206,503]	217,185	210,139	212,779					
	2	5	214	1	...	1	7	60	335	49	5	2	3	1	3	45	209	9	26	70	23	1		
Small-pox				
Measles ...	35	62	149	53	3	422	15	87	125	36	164	22	163	66	126	61	58	109	66	107	77	133	53	74	73	120	54	33	...	...	...	...	
Whooping Cough ...	82	127	107	56	102	110	145	214	31	90	188	108	114	117	97	59	128	92	43	101	47	239	66	174	95	38	196	38	...	...	...	...	
Diphtheria ...	...	...	...	49	18	11	43	50	24	36	18	13	31	39	20	19	16	20	14	13	11	4	5	4	6	10	8	13	...	...	...	...	
Scarlet Fever...	28	132	582	257	43	19	72	925	206	54	77	39	37	179	746	173	23	39	22	457	286	45	36	92	244	153	75	33	...	...	...	...	
Enteric { Typhus {	135	164	183	126	114	133	184	194	220	243	177	203	173	105	120	116	83	106	84	94	84	101	89	42	39	52	38	29	...	...	...	...	
Diarrhoea & Dysentery	245	207	275	139	120	212	120	192	184	231	179	177	280	192	216	172	158	141	159	128	209	117	171	70	184	82	104	83	...	...	...	...	
Cholera and Choleraic Diarrhoea	7	4	3	4	1	2	1	8	2	...	51	1	5	3	4	2	3	4	2	5	...	1	...	...	6	3	1	1	...	...	...	...	
Puerperal Fever*	82				
Erysipelas ...	19	5	24	15	20	20	13	29	24	14	12	15	9	34	28	18	12	27	22	27	18	22	14	13	13	...	...	10	...	...	...	...	

The figures given in Italics represent the deaths occurring amongst the combined Populations of the three Registration Districts, as given in the Registrar General's Table of Deaths from various causes, viz.: Bristol (part of City), Bedminster, and Barten Regis (containing part of Bristol City).

*Previous to 1884, Puerperal Fever was not separated in the Local returns from Puerperal Diseases generally.

TABLE C.--continued.

Showing Number of Deaths from Zymotic Diseases in Bristol during the 59 years 1856-1914.

ESTIMATED POPULATION OF BOROUGH.

	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
215,457.	212,586.	214,134.	215,694.	217,266.	218,848.	220,442.	222,049.	223,592.	225,028.	226,578.	228,139.	230,626.	232,242.	316,900	320,911	324,973	329,086	334,632	338,895	343,204	358,515	363,223	367,979	372,785	377,642	382,550	387,509	359,400	361,362	363,312	
ENLARGED CITY.																															
Small-pox ...	...	10	8	13	26	...	1+	...	2+	16½	...	5	1	...	...	...	...	...	1	3	1½	...	...	1	...	9½	...	...	3	...	...
Measles ...	46	159	101	147	61	185	92	239	105	25	116	8	143	57	309	38	200	7	411	11	94	180	140	36	96	90	32	164	153	49	92
Whooping Cough	99	149	101	124	38	105	201	53	154	80	177	45	64	118	110	118	54	189	105	65	110	123	102	26	128	56	66	142	69	53	67
Diphtheria... (Including M. Group)	19	25	28	23	26	15	16	16	38	53	50	34	38	36	44	33	103	124	189	119	105	59	82	65	69	55	38	42	48	33	39
Scarlet Fever ...	37	21	89	217	45	26	40	37	47	35	16	16	59	18	14	13	39	36	66	49	36	39	27	26	10	12	12	16	12	6	22
Enteric Fever ...	40	16	29	23	28	38	33	23	18	26	21	22	20	47	26	35	44	40	59	21	26	13	21	15	10	12	9	18	7	5	9
Typhus Fever ...	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Dys- entery	132	89	119	117	68	131	96	58	99	125	65	143	106	153	348	345	165	134	110	107	206	169	213	133	154	116	76	407	66	166	134
Cholera and Choler- aic Diarrhoea	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Interpal Fever ...	18	12	8	9	17	11	12	7	25	16	11	8	8	6	11	22	20	17	17	14	16	6	14	11	7	17	14	10	15	8	11
Erysipelas ...	11	10	11	10	21	16	9	12	21	11	8	16	10	5	6	13	12	21	12	8	9	8	7	3	6	3	7	9	11	5	23

† This death occurred in the Novers Hill Hospital outside the City, and so did not appear in the General Returns.

‡ Of these deaths one occurred in the Novers Hill Hospital outside the City, and so did not appear in the General Returns.

§ Of these deaths five occurred in the Novers Hill Hospital outside the City, and so did not appear in the General Returns.

|| This death occurred on the Hospital Ship, Avonmouth. Patient was admitted from Keynsham Workhouse outside the City.

¶ Including one death which occurred at Consham Hospital, admitted from Chipping Sodbury Rural District.

CITY OF BRISTOL.**Infectious Disease (Notification Act), 1889.**

Notifications received during each Quarter of 1913.

1914.—Table a.

NOTIFIABLE DISEASE.	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total of each disease.
Small Pox ...	...	...	...	..	...
Cholera Choleraic Diarrhœa	...	...	...	...	...
Diphtheria (including Membranous Croup)	146	80	139	268	633
Erysipelas ...	103	51	61	96	311
Scarlet Fever ...	859	427	331	594	2211
Typhus Fever ...	...	...	...	...	...
Enteric Fever ...	23	41	10	24	98
Relapsing Fever ...	...	...	..	...	...
Continued Fever ...	...	1	...	...	1
Puerperal Fever ...	4	6	6	7	23
Cerebro-Spinal Fever	24	4	2	3	33
Acute Poliomyelitis	...	...	2	...	2
Totals in each Quarter	1159	610	551	992	3312

CITY OF BRISTOL.

TABLE b. Notification and Deaths Registered by Sub-Districts during the year 1914.

	Small-pox.	Diphtheria (including Membrano's Group).	Erysipelas.		Scarlet Fever.		Typhus		Relap- sing.	Continued.	PUER- PERAL.		Cerebro- Spinal Meningitis.		Poliomye- letis.	Total cases in each Sub- District.
			Cases	D'ths	Cases	D'ths	Cases	D'ths			Cases	D'ths	Cases	D'ths		
Ashley	53	2	33	2	248	1	10	1	4	3	3	3			352
Bedminster	119	5	61	1	620	9	3		4	2	14	5			821
Bristol Central	47	4	41	1	152	1	35						1		283
Clifton	51	2	23		191	5	6								274
Knowle	86	5	9		108		1								208
St. George	85	9	45	6	348	5	5							1	486
St. Philip	49	4	53	8	270	1	15								395
Stapleton	64	2	19		171		2								258
Westbury-on-Trym	45	2	8		64		3								122
Public Insts.	21		18	4	33		7								80
Admitted to Public Insts. from outside of Borough		13	4	1	1	6		11								33
Total cases of each disease		633		311		2211		98	1	23		33		2		3,312
Total deaths from each disease			39		23		22				11		13			117
Percentage of deaths to known cases...		6.1		7.4		0.9		9.1		47.8		39.3				3.5

NOTIFICATION 1914.

CITY OF BRISTOL.

TABLE c. Showing the number of Cases of Infectious Disease notified under the Infectious Disease Notification Act, 1889, since its adoption in 1890.

ENLARGED CITY.																										
	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	
Small-pox ...	0	16	0	165	201	4	42	10	2	0	0	1	6	46	34	13	32	6	1	38	4	0	62	0	0	
Diphtheria (including M. Group)	56	70	106	141	128	165	258	205	217	215	506	908	1,109	1,134	1,051	1,021	839	926	924	712	556	584	643	762	633	
Erysipelas ...	105	135	196	230	154	195	246	203	263	337	342	392	376	244	256	303	239	244	223	199	177	309	253	227	311	
Scarlet Fever ...	559	888	1,442	1,245	485	562	1,352	511	382	697	1,957	2,206	2,724	2,168	1,258	1,085	1,019	886	486	692	1,216	953	580	1,738	2211	
Typhus...	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
Enteric Fever ...	122	117	135	122	90	89	110	350	113	219	285	281	319	134	172	76	120	74	103	66	85	148	79	64	98	
Continued or Doubtful Fever	6	8	3	6	1	1	2	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	3	1	
Puerperal Fever	11	11	34	30	18	16	21	10	18	36	46	43	39	31	27	30	37	36	22	36	39	26	26	23	23	
Cerebro Spinal Fever ...																									16	33
Anterior Polio-Myelitis ...																									7	.2

TABLE I. Vital Statistics of Whole District during 1914 and Previous Years.
CITY OF BRISTOL.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		TOTAL DEATHS REGISTERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT	Deaths of Non-Residents registered in Public Institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT	
		Number	Rate per 1000 population.	Under 1 year of age		At all ages.					Number	Rate per 1000 population
				Number	Rate per 1000 Births registered	Number	Rate per 1000 population					
1	2	3	4	5	6	7	8	9	10	11	12	13
1904	343,204	9,135	26.6	1,222	133.7	5,347	15.5	1,162	109	..	5,238	15.2
1905	358,515	9,649	26.9	1,182	122.4	5,286	14.7	1,197	97	4	5,193	14.4
1906	363,223	9,372	25.8	1,196	127.6	5,299	14.5	1,188	101	2	5,200	14.3
1907	367,979	8,915	24.2	900	100.9	4,897	13.3	1,211	113	1	4,785	13.0
1908	372,785	8,753	23.0	1,102	125.8	5,230	13.7	1,247	131	6	5,109	13.4
1909	377,042	8,507	22.5	860	101.0	4,869	12.8	1,286	130	6	4,745	12.5
1910	382,550	8,258	21.5	746	90.3	4,523	11.8	1,283	146	8	4,385	11.4
1911	357,509	7,751	21.0	1,107	142.8	5,537	15.4	1,460	160	53	5,430	15.1
1912	359,400	7,681	21.3	789	102.7	4,894	13.6	1,392	132	53	4,820	13.4
1913	361,362	8,261	22.4	806	97.5	4,793	13.0	1,357	150	63	4,706	12.7
Average for Years 1904-1913.	364,416	8,628	23.6	991	114.9	5,067	13.9	1,267	126	*	4,961	14.3
1914	363,312	7,783	21.42	789	101.3	5,015	13.80	1,457	218	68	4,865	13.39

* The information required is not available.

NOTE.—The deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

"By the term "Non-residents" is meant persons brought into the district on account of sickness and infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public Institutions" to be taken into account for the purpose of these Tables are those into which persons are habitually received, on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made should be given on the back of this Table.

Area of District in acres, 17,460.

Total population at all ages ... 357,059—At Census of 1911.

I. Institutions within the District receiving sick and infirm persons from outside the District	II. Institutions within the District Receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
<p>ROYAL INFIRMARY. GENERAL HOSPITAL CHILDREN'S HOSPITAL.</p> <p>COSSHAM HOSPITAL CONVALESCENT HOME EYE HOSPITAL EYE DISPENSARY HOMŒOPATHIC HOSPITAL ORTHOPÆDIC HOSPITAL</p>	<p>ROYAL INFIRMARY GENERAL HOSPITAL CHILDREN'S HOSPITAL</p> <p>COSSHAM HOSPITAL CONVALESCENT HOME EYE HOSPITAL EYE DISPENSARY HOMŒOPATHIC HOSPITAL ORTHOPÆDIC HOSPITAL</p>	<p>CITY HOSPITALS NOVERS HILL HAM GREEN HOSPITAL SHIP, AVONMOUTH CLIFT HOUSE (closed July, 1906) BRISTOL PRIVATE HOSPITAL FOR WOMEN & CHILDREN LYING-IN HOSPITAL AND Temporary Home VOLUNTARY LOCK HOSPITAL</p>

Municipal Institutions (within the City)—

SOUTHMEAD WORKHOUSE
EASTVILLE WORKHOUSE
STAPLETON WORKHOUSE
LUNATIC ASYLUM

Table II.

Vital Statistics of Separate Localities (Registration Sub-Districts) in 1914 and previous years.

NAMES OF LOCALITIES	1.—ASHLEY.				2.—BEDMINSTER.				3.—BRISTOL CENTRAL.				4.—CLIFTON.				5.—KNOWLE.				6.—ST. GEORGE.				7.—ST. PHILIP.				8.—STAPLETON.				9.—WESTBURY-ON-TRYM.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.
	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.	a.	b.	c.	d.
*1904 ...	42,842	894	411	75	64,505	2,003	850	243	42,793	1,027	706	157	44,446	688	556	68	14,679	522	200	29	61,670	1,779	853	273	48,810	1,545	814	238	23,459	575	241	62				
1905 ...	44,144	921	445	86	65,877	2,072	826	234	41,864	1,042	771	162	41,462	702	558	69	15,302	548	199	65	63,612	1,792	759	216	48,639	1,586	735	226	24,151	556	222	68	10,464	347	135	41
1906 ...	45,023	906	468	72	67,261	1,981	865	256	40,936	1,024	665	178	44,183	696	541	75	15,928	530	210	50	65,567	1,703	706	196	48,472	1,551	803	238	24,847	555	251	57	10,706	334	141	34
1907 ...	45,909	908	469	68	68,652	1,937	775	195	40,011	920	621	109	44,504	620	507	67	16,558	512	214	57	67,533	1,551	623	144	48,310	1,494	648	156	25,547	569	275	56	10,950	300	99	22
1908 ...	46,802	837	501	81	70,055	1,765	787	217	39,087	957	628	156	44,539	634	530	58	17,191	504	197	44	69,511	1,635	720	198	48,152	1,413	757	229	26,252	589	216	57	11,196	324	107	28
1909 ...	47,702	803	485	59	71,469	1,736	709	175	38,165	915	621	129	44,573	670	542	65	17,828	487	172	49	71,501	1,541	635	154	47,999	1,448	621	153	26,961	524	238	47	11,444	272	118	24
1910 ...	50,361	799	412	46	69,389	1,623	619	143	37,110	937	509	99	46,647	686	518	68	18,430	466	181	26	71,591	1,512	605	145	49,653	1,384	567	139	27,676	506	215	29	11,693	244	101	17
1911 ...	47,378	711	524	71	61,176	1,579	832	226	38,485	367	603	141	42,466	640	582	76	20,150	447	185	31	58,478	1,421	793	216	50,215	1,259	793	207	26,149	492	272	63	12,562	260	117	18
1912 ...	48,091	763	506	56	61,720	1,581	744	163	37,582	796	562	95	41,971	650	504	64	21,098	426	187	46	59,100	1,400	663	141	50,108	1,234	652	157	26,780	461	231	39	12,955	277	109	17
1913 ...	48,718	750	472	51	62,186	1,629	690	166	36,747	935	525	108	41,503	701	520	66	12,952	444	204	28	59,640	1,524	618	133	49,973	1,391	681	173	27,336	536	229	40	13,307	280	106	16
Averages of Years 1904 to 1913	46,697	829	469	66	66,229	1,790	769	201	39,278	892	621	133	43,659	668	535	67	17,011	494	194	42	64,820	1,585	697	181	49,032	1,430	707	191	25,915	536	239	51				
1914 ...	49,323	748	486	45	62,643	1,532	695	165	35,968	880	561	103	41,071	660	550	60	22,765	429	185	27	60,165	1,429	681	152	49,864	1,316	667	156	27,869	469	235	42	13,644	249	116	12

* The Registration Sub-districts were so interchanged at the extension of the City in 1897, by the consequent re-arrangement of boundaries in 1898, that this Table cannot be given for previous years.

rs.

8.—STAPLETON.					9.—WESTBURY-ON-TRYM.			
Population esti- mated to middle of each year.	Births regis- tered.	Deaths at all Ages.	Deaths under 1 year.		Population esti- mated to middle of each year.	Births Regis- tered.	Deaths at all Ages.	Deaths under 1 Year.
<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>		<i>a.</i>	<i>b.</i>	<i>c.</i>	<i>d.</i>
23,459	575	241	62					
24,151	556	222	68	10,464	347	135	41	
24,847	555	251	57	10,706	334	141	34	
25,547	569	275	56	10,950	300	99	22	
26,252	589	216	57	11,196	324	107	28	
26,961	524	238	47	11,444	272	118	24	
27,676	506	215	29	11,693	244	101	17	
26,149	492	272	63	12,562	260	117	18	
26,780	461	231	39	12,955	277	109	17	
27,336	536	229	40	13,307	280	106	16	
25,915	536	239	51					
27,869	469	235	42	13,644	249	116	12	

years.

CITY OF BRISTOL.

[illegible]

TABLE IV.

CITY OF BRISTOL. Causes of, and Ages at, Death during the Year ending 2nd January, 1915.

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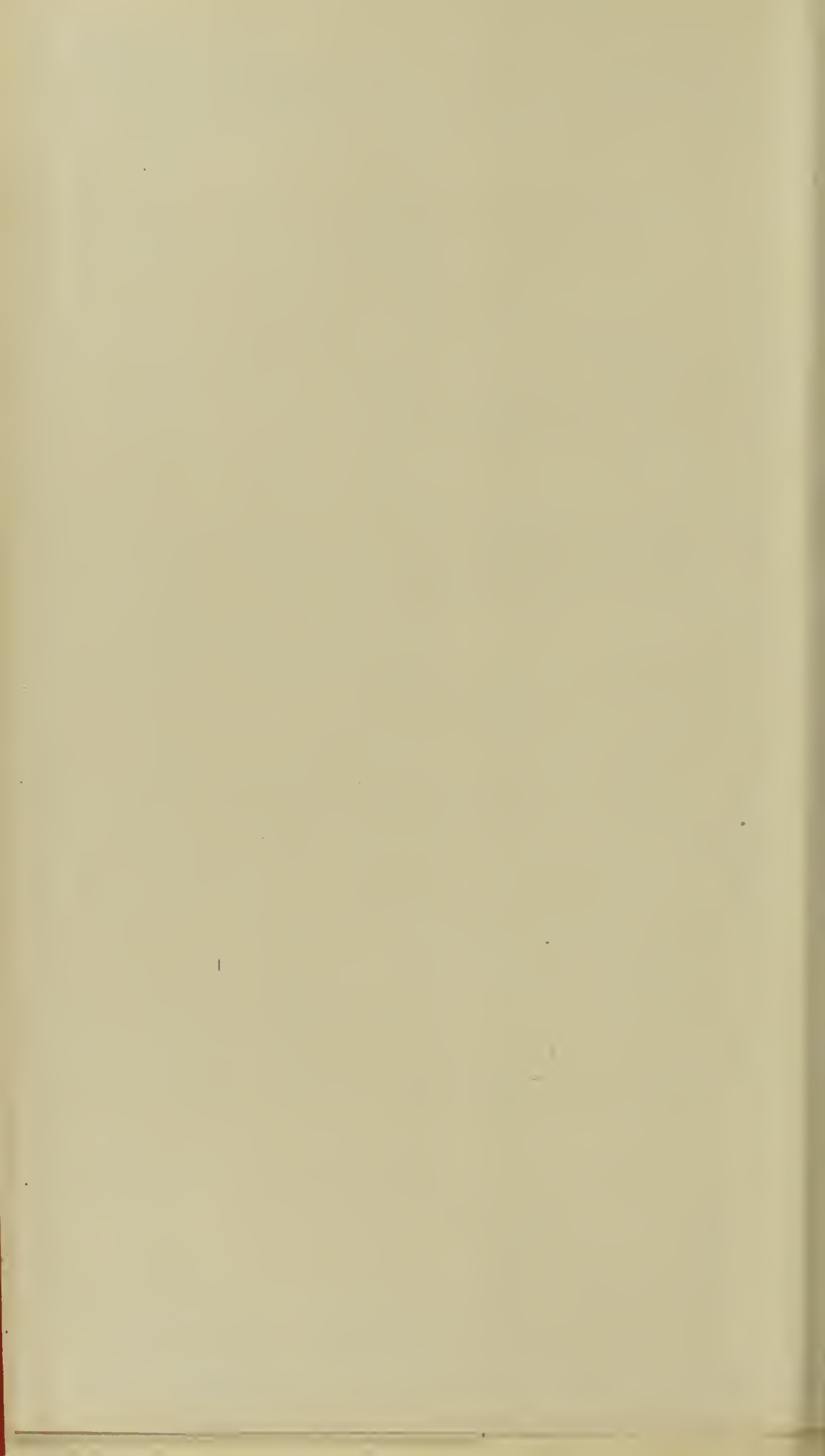
CAUSE OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.								DEATHS IN LOCALITIES (AT ALL AGES).												DEATHS IN PUBLIC INSTITUTIONS.
	All Ages	Under 1	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Municipal Institutions	Not belonging to Borough	
1 ENTERIC FEVER ...	9	...	...	...	4	2	3	...	...	...	...	5	...	...	...	3	...	...	...	1	8
2 SMALL-POX ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3 MEASLES ...	92	9	44	30	8	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4 SCARLET FEVER ...	22	...	1	12	9	...	...	...	...	...	...	9	1	3	23	24	...	7	4	...	9
5 WHOOPING COUGH ...	67	28	20	16	3	...	...	...	...	...	...	1	9	5	...	5	1	...	...	...	13
6 DIPHTHERIA & CROUP	39	8	1	12	16	1	...	1	...	3	20	8	2	3	16	14	1	...	...	...	6
7 Influenza ...	44	1	...	...	1	3	5	12	22	5	5	4	2	5	9	4	2	2	...	4	34
8 Erysipelas ...	23	1	...	...	...	2	7	9	4	2	1	1	11	1	5	5	2	1	10	1	10
9 Phthisis (Pulmonary Tuberculosis) ...	404	4	5	2	16	80	166	120	11	2	1	...	...	...	6	8	...	...	4	1	9
10 Tuberculous Meningitis ...	46	10	9	9	11	5	2	...	...	29	40	37	35	17	51	66	27	7	87	8	129
11 Other Tuberculous Diseases	53	10	3	3	10	7	15	5	...	5	13	6	2	4	6	6	2	...	1	1	19
12 Cancer, malignant disease ...	435	...	...	1	1	1	38	204	187	5	6	7	4	2	9	8	1	1	8	2	23
13 Rheumatic Fever ...	43	...	...	...	8	7	14	9	5	58	57	46	56	18	51	43	21	11	49	25	101
14 Meningitis ...	51	12	10	8	11	2	6	2	...	9	7	5	1	2	10	5	2	1	1	...	6
15 Organic Heart Disease ...	463	...	...	...	18	12	39	155	239	6	11	2	4	1	6	11	2	4	1	3	22
16 Bronchitis ...	352	52	4	6	1	2	14	77	199	73	48	62	55	20	50	44	26	11	64	10	97
17 Pneumonia (all forms) ...	363	77	58	28	19	14	37	62	68	29	58	59	37	18	59	51	21	7	8	5	20
18 Other Diseases of Respiratory Organs ...	95	2	3	5	3	2	23	28	29	25	61	37	35	10	58	58	17	7	40	15	122
19 DIARRHŒA AND ENTERITIS ...	135	116	19	...	...	...	...	...	...	8	17	9	7	3	11	9	5	3	20	3	34
20 Appendicitis and Typhlitis ...	33	...	1	2	3	10	9	7	1	7	21	25	7	4	35	24	8	...	...	4	37
21 Cirrhosis of Liver...	33	...	...	...	1	...	2	17	13	2	5	3	2	...	1	...	...	5	...	15	24
21a Alcoholism ...	22	...	...	...	...	1	6	12	3	4	6	5	6	...	2	1	1	2	5	1	10
22 Nephritis & Bright's Disease	199	...	2	...	4	3	33	87	70	4	1	5	4	...	...	5	...	...	3	...	8
23 Puerperal Fever ...	11	...	...	...	...	1	10	...	...	22	27	23	25	2	27	21	8	7	27	10	66
24 Other Accidents and Diseases of Pregnancy & Parturition	19	...	...	...	...	2	17	...	...	3	2	1	...	1	1	1	1	...	...	1	6
25 Congenital Debility and Malformation, including Premature Birth ...	291	291	...	...	...	...	...	...	...	1	6	1	2	...	4	2	1	1	...	1	7
26 Violent Deaths ...	179	10	6	16	9	12	46	34	46	21	56	35	28	9	47	60	18	8	5	4	56
27 Suicide ...	22	...	...	...	...	1	9	10	2	6	21	26	15	6	20	29	9	1	19	33	98
28 Other Defined Diseases	1469	158	13	24	30	41	133	308	762	5	2	3	3	...	5	1	1	...	1	1	3
29 Diseases ill-defined or unknown ...	1	...	1	...	...	...	...	...	...	148	175	141	200	56	164	163	59	30	264	69	480
All Causes ...	5015	789	200	174	186	215	634	1159	1658	486	695	561	550	185	681	667	235	116	621	218	1457
Sub-Entries included in above figures.	14a. Cerebro-spinal Meningitis ...	19	1	4	6	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...
	Venereal diseases ...	38	26	1	1	1	5	3	1	3	5	2	3	1	1	2	...	1	...	1	13
	Sleeping Sickness ...	1	...	...	...	...	1	...	...	...	11	6	1	1	3	8	...	...	5	3	17

CITY RATES.

No. of Births.	Birth Rate	DEATH RATE.			Principal Epidemic Diseases (Zymotic) Rate.	Infantile Rate
		Year 1913	Last Year	10 Years' Average		
M 4028 F 3755 7783	21.42	13.80	13.01	13.90	0.99	101.37

Average age at Death of Persons aged 65 and upwards .. 75 years 7 months.
 Births of Illegitimate Children .. (Males 151 Females 140)—291
 Total Deaths .. (under 5) (.. 40 .. 39)—79
 Inquests 462
 Uncertified Deaths 0

District Death Rates	9.85	11.09	15.59	13.39	8.12	11.32	113.37	8.43	8.50	...	...	...
District Birth Rates	15.16	24.45	24.46	16.06	18.84	23.74	26.38	16.82	18.24	...	...	...
Deaths of Infants under 1	45	165	103	60	27	152	156	42	12	13	14	...
Number of Births	M. 377 F. 371	M. 815 F. 717	M. 455 F. 425	M. 332 F. 328	M. 220 F. 209	M. 747 F. 682	M. 652 F. 664	M. 266 F. 203	M. 127 F. 122	M. 37 F. 34	...	...
Infantile Rate	748	1532	890	660	429	1429	1316	469	249	71	...	...
	60.16	107.70	117.04	90.90	62.93	106.36	118.54	89.55	54.19	...	...	...



INFANTILE MORTALITY during the Year ending 2nd January, 1915.

Deaths from Stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total Under One Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths Under One Year
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Measles .. ..	..	..	..	..	..	..	..	1	..	..	3	..	1	..	3	1	9
Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. ..	..	..	..	..	..	5	5	3	1	3	2	3	1	1	1	3	28
Diphtheria and Croup .. ..	..	..	..	..	..	..	1	..	3	..	..	1	2	..	1	..	8
Erysipelas .. ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Tuberculous Meningitis .. ..	..	..	..	..	..	..	..	1	..	2	1	1	2	2	1	..	10
Abdominal Tuberculosis .. ..	..	..	..	..	..	1	..	1	1	2	..	..	1	..	..	..	6
Other Tuberculous Diseases .. ..	..	..	..	..	..	..	..	..	..	2	..	1	1	3	..	1	8
Meningitis	2	..	..	..	2	1	..	..	1	3	3	..	1	..	1	..	12
Convulsions	13	9	5	2	29	5	7	4	4	..	3	..	1	1	4	3	61
Laryngitis .. ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Bronchitis .. ..	..	2	4	2	8	12	9	4	1	3	1	3	2	2	2	5	52
Pneumonia (all forms)	1	..	3	2	6	4	8	7	2	8	10	8	7	7	7	3	77
Diarrhoea .. ..	..	1	3	3	7	3	10	6	2	6	3	3	2	4	3	..	49
Enteritis .. ..	..	4	3	2	9	10	12	5	4	8	6	8	..	11	2	2	67
Gastritis	1	..	..	1	2	..	..	1	..	..	..	..	..	..	..	..	3
Syphilis	1	3	6	3	13	4	3	1	3	..	1	..	..	..	1	..	26
Rickets .. ..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Suffocation, overlying .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Injury at Birth .. ..	..	2	..	..	2	..	..	1	..	..	..	..	..	..	..	..	2
Atelectasis	14	2	1	..	17	..	..	1	..	..	..	..	..	..	..	..	18
Congenital Malformations	7	2	..	1	10	7	3	3	..	3	..	1	1	1	..	..	29
Premature Birth	95	18	11	6	130	5	..	..	1	..	..	..	..	..	..	..	136
Atrophy, Debility and Marasmus	24	9	10	12	55	24	11	12	9	3	4	5	1	1	1	..	126
Other Causes	17	6	5	1	29	4	5	7	1	2	1	1	..	2	1	2	55
Totals	177	56	51	35	319	85	76	58	33	46	38	37	23	25	28	21	789

Nett Births during the Year	M.	F.
	3877	3615
	M.	F.
	151	140

Nett Deaths during the Year	M.	F.
	438	282
	M.	F.
	35	34

Uncertified Deaths 0

PART II.

**REPORT OF THE ACTING TUBERCULOSIS
OFFICER****For the Year 1914.**

The work of the Dispensary has shared in the general dislocation of business caused by the war. The increase in its activities has been so great that in May it was found necessary to open premises in Portland Square, from which the northern districts of the city are served. Two assistant nurses were added to the staff, and in the same month Dr. P. A. Galpin was appointed Assistant Tuberculosis Officer. The Portland Square Dispensary is larger and better equipped than the original place in Redcliff Parade, and contains (besides the usual waiting and consulting rooms), a pharmacy, laboratory, and three beds for use when it is desired to have patients under observation for a few days; as, for instance, when performing artificial pneumothorax or tuberculin tests, and so forth.

When the war broke out the Tuberculosis Officer, Dr. Faill, was called up, and has been appointed to H.M.S. "Queen Elizabeth." After an interval of some weeks the writer was appointed Temporary Assistant, and in December he was left to carry on the work single-handed, Dr. Galpin leaving to join the 2nd London Sanitary Co. R.A.M.C. (T.). The nursing staff too has been for a time reduced by the departure of Miss Dimond, who was called up for war service, and of Miss Thomson, who resigned and has accepted a post in Nigeria under the Colonial Office. Miss Steer has been appointed in her place, and Miss Gillett and Miss Court have lately been appointed for temporary work.

These interruptions, and the imperfect acquaintance of the writer with the history of past years, must be held to excuse some of the shortcomings of the work, and of this account of it.

The number of new cases who attended the Dispensaries this year was 991, a very considerable increase on the number for last year, viz.: 696. It will be seen from the tables that this is largely due to the opening of the second Dispensary, and also to the greater number of contacts examined. The development of this part of the work was made possible by the increase of the nursing and medical staffs. Most of the differences between the tables of this and previous years will be found to be due to this—the increase in the number of the non-insured patients, and in the proportion of non-tuberculous cases found among them.

The subsequent visits for the year were 9,850.

The home visitation was carried out systematically till August, since when we have had to do what we could with a diminished staff.

Number of Patients found to have Tuberculosis.

The following table shows the number of cases found to be affected with the different forms of Tuberculosis, and of those found to be free from it. Those under observation at the Dispensary are cases in whom the possibility of an active tuberculous focus cannot as yet be excluded, but who present no conclusive evidence of any gross tuberculous lesion, active or quiescent.

TABLE 1.—The figures on which this and the following tables are based are those of the permanent officers.

Proportion of Patients found to have Tuberculosis.

The following table shows the proportion of cases of Tuberculosis found amongst the 991 new patients who attend the Dispensary from the City and elsewhere.

In this table, and throughout this Report, the term "Pulmonary Tuberculosis" signifies Tuberculosis of the lungs—formerly phthisis or consumption. "Tuberculosis" stands for that disease in glands, joints, bones, and other organs of the body.

TABLE 1.

INSURED.											
	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip & St. Jacob	Stapleton	Westbury- on-Trym.	Outside City	TOTAL
Pulmonary Tuberculosis } ...	25	61	46	30	13	50	60	8	7	—	300
Stigmata and other forms of Tuberculosis } ...	1	10	—	3	—	2	3	—	—	—	19
Observation at Dispensary } ...	1	16	6	1	3	6	4	2	1	—	40
Non-Tuberculous } ...	2	10	2	—	2	5	3	3	—	—	27
TOTAL ..	29	97	54	34	18	63	70	13	8	—	386
NON-INSURED.											
Pulmonary Tuberculosis } ...	18	51	26	23	17	29	42	8	4	—	218
Stigmata and other forms of Tuberculosis } ..	12	59	15	23	10	23	51	9	23	—	225
Observation at Dispensary } ..	6	29	14	9	5	5	18	2	4	—	89
Non-Tuberculous } ...	4	14	7	10	5	6	25	1	1	—	73
TOTAL ...	40	153	62	65	37	63	136	20	29	—	605

RESULT OF EXAMINATION.

The diagnosis as to the presence of Tuberculosis shown in Table 1.

TABLE 2.

Sex, Age-Constitution, and Diagnosis of the 991 New Patients during 1914.

Age	1-5			5-10			10-15			15-25			25-35			35-45			45-55			55-65			65-x			All Ages		
SEX.	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
Pulmonary Tuberculosis	...	5	5	19	16	35	35	32	67	78	79	157	67	72	139	43	33	76	21	10	31	4	2	6	2	...	2	269	249	518
Stigmata and other forms of Tuberculosis	21	34	55	51	44	95	41	23	64	6	13	19	4	1	5	...	3	3	1	3	3	...	...	...	...	...	...	124	120	244
Observations at Dispensary	7	2	9	11	12	23	16	16	26	14	23	37	4	11	15	3	8	11	3	4	7	1	...	1	...	...	...	53	76	129
Non- Tuberculous	7	11	18	10	9	19	8	13	21	5	17	22	3	11	14	...	5	5	...	1	1	...	...	...	...	...	...	33	67	100
Totals	35	52	87	91	81	172	94	84	178	103	132	235	78	95	173	46	49	95	25	17	42	5	2	7	2	...	2	479	512	991

The percentage of the total number of Patients examined in each age-group, and found to have Pulmonary Tuberculosis, was therefore as follows:—

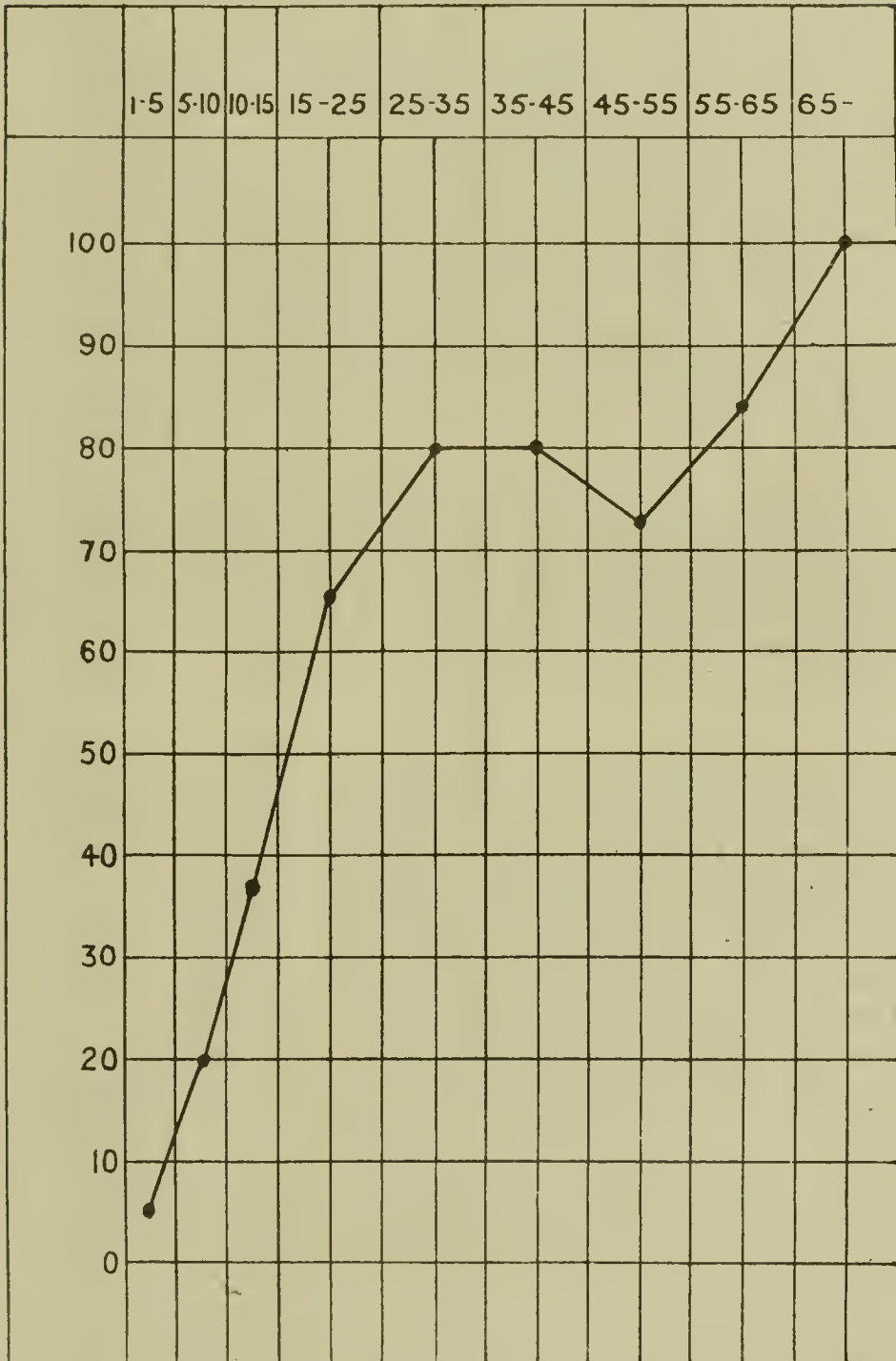
TABLE 2a.

PERCENTAGE IN EACH AGE-GROUP FOUND TO HAVE PULMONARY TUBERCULOSIS.																															
Age	1-5			5-10			10-15			15-25			25-35			35-45			45-55			55-65			65-+			All Ages.		
SEX		Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes			
Total number Examined		35	52	87	91	81	172	94	84	178	103	132	235	78	95	173	46	49	95	25	17	42	5	2	7	2	479	512	991		
Pulmonary Tuberculosis		...	5	5	19	16	35	35	32	67	78	79	157	67	72	139	43	33	76	21	10	31	4	2	6	2	269	249	518		
Percentage	9.6	5.7	20.8	19.7	20.4	37.2	38.1	37.6	75.7	59.8	66.8	85.9	75.8	80.3	93.5	67.3	80.0	84.0	58.8	73.8	80.0	100.0	85.7	100.0	100.0	56.1	48.6	52.1	
Stigmata and other forms of Tuberculosis		21	34	55	51	44	95	41	23	64	6	13	19	4	1	5	...	3	3	1	2	3	...	...	...	...	124	120	244
Percentage ...		60.0	65.4	63.2	56.0	54.3	55.2	43.6	27.4	36.0	5.8	9.8	8.5	5.1	1.1	3.0	...	6.1	3.2	4.0	11.7	7.1	...	...	...	...	26.0	23.4	24.6
Observation at Dispensary		7	2	9	11	12	23	10	16	26	14	23	37	4	11	15	3	8	11	3	4	7	1	...	1	...	53	76	129		
Percentage ...		20.0	3.8	10.3	12.1	14.8	13.3	10.6	19.0	14.6	13.6	17.4	15.7	5.1	11.5	8.6	6.5	16.3	11.5	12.0	23.5	16.6	20.0	...	14.3	...	11.1	14.8	13.0		

The total number examined was 991. Of these 762 were diagnosed as definitely tuberculous, 76.7 per cent.; 129 are under observation, 13 per cent.; 100 were found free from Tuberculosis, 10.3 per cent.

DIAGRAM A.

Percentage of each Age-group found to have PULMONARY TUBERCULOSIS.
(Or age incidence of the diseased among a Dispensary population).



These tables require some words of explanation. It must be remembered that they have no bearing whatever on the question of the prevalence of Tuberculosis in Bristol or among the working classes, nor does the comparison of them from year to year shed any light on the increase or decrease of it. The totals only show the numbers of tuberculous people each year who *find their way to the Dispensary*, and afford an index of the extent of the work done there, and of the appreciation of its services by practitioners. The factors influencing the proportion of non-tuberculous patients are chiefly these :—(1) the number of cases examined as “contacts,” and (2) the readiness of practitioners to send up cases *on suspicion* of possible Tuberculosis. The great majority of adult cases reach us with the diagnosis of Tuberculosis already made; a small but increasing number are sent up for diagnosis. The lower proportion of tuberculous cases this year is certainly mainly due to the fact that a much larger number of children of tuberculous families have been examined as contacts.

A comparison with the table of last year shows that the difference is much more marked in the first three quinquennia. But a similar difference in the later age-periods, and the number of observation cases, also point to a tendency for practitioners to send up cases before the stage of conclusive evidence has been reached. This is a valuable advance, for it is just at this stage that the disease is most amenable to treatment. If lasting good is to be done, it is most desirable that cases should be sent to us at a time when the signs and symptoms warrant no more than a suspicion, to be confirmed or allayed by the use of those special and laboratory examinations which are impossible to the busy practitioner. It is only in this way that the majority of cases can be discovered early enough to reap the full benefit from sanatorium treatment, and hitherto

only a very small proportion of the patients have been sent to us in this stage. Consequently, while the Hospital for advanced cases has been full, and has a long waiting list, there has been some difficulty in finding enough real "sanatorium cases" to fill the beds available; for, though there is no doubt that many moderately advanced cases benefit very greatly by sanatorium treatment (especially those chronic cases who show evidence of considerable natural power of resistance, some of whom often do better than earlier cases with less natural resistance), it is still true that the best results are obtained in the very early "closed" cases, and that it is only in these that any considerable percentage of lasting cures can be expected.

Age and Sex Constitution.

The proportion of males and females is approximately the same as last year. The evening sessions for patients who are at work have been continued.

TABLE 3.

Age ..	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65×	All ages
Males ..	35	91	94	103	78	46	25	5	2	479
Females ..	52	81	84	132	95	49	17	2	—	512
Both Sexes ..	17	172	178	235	173	95	42	7	2	991

DIAGRAM B.

Number of new patients who attended the Dispensary during 1914.

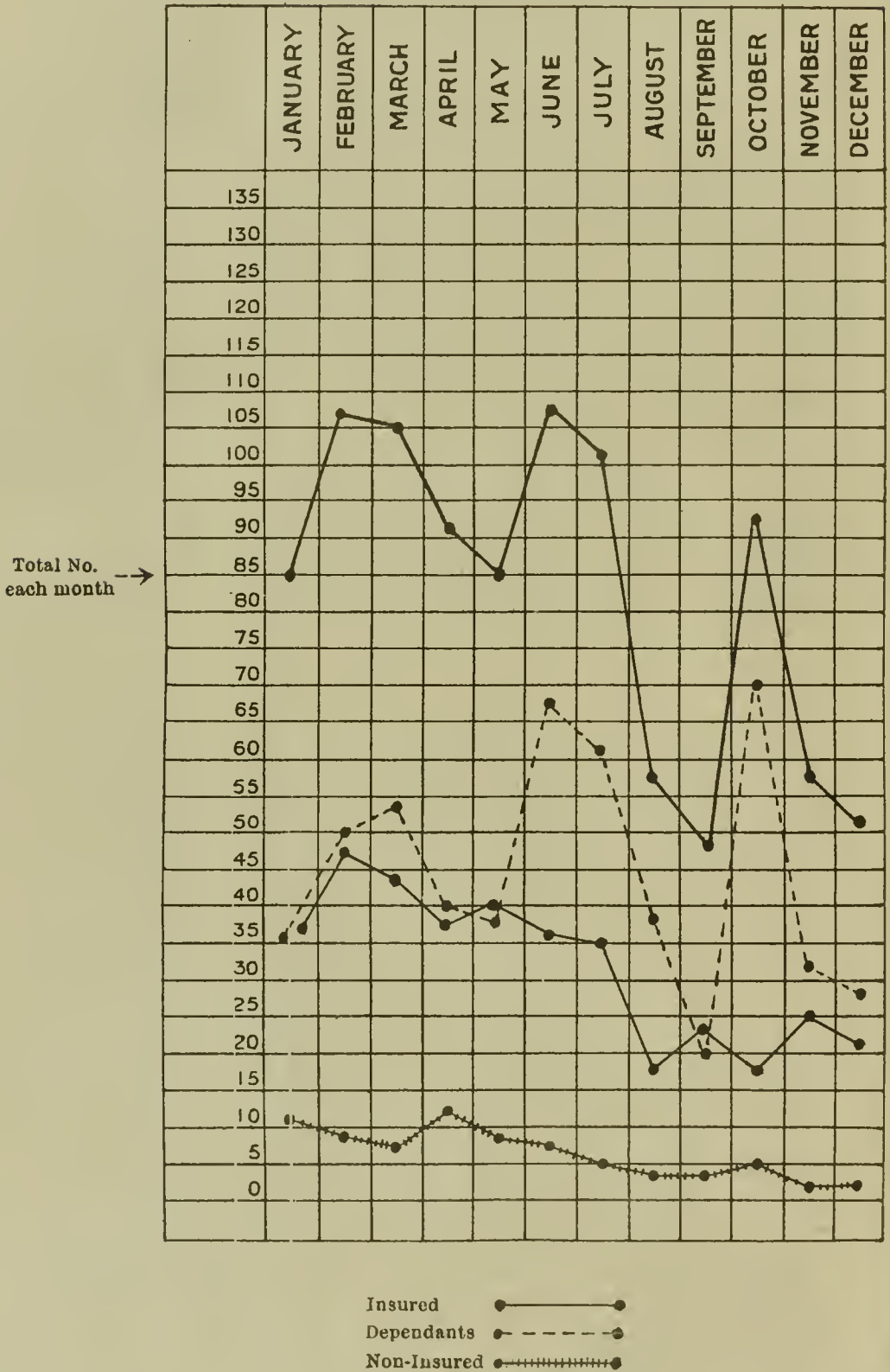


Diagram "B."

Here again we can see that the large bulk of the attendances are "dependants of insured," very many of whom are examined as "contact" cases: the total attendance appears to fluctuate with the number of these. The monthly variations are due to variations in the number of the staff—especially the nursing staff; the increase in June, to the opening of the Portland Square Dispensary; the drop in August and September, to the departure of Dr. Faill and Miss Dimond. The rise in October coincides with the appointment of the writer and the resumption of the Wednesday "contact" examinations; the drop in November and December, with the departure of Miss Thomson and Dr. Galpin. It seems clear that with a full staff the attendance annually would be enormously increased. The importance of this work will be realised when it is remembered that 63·4 per cent. of the "contacts" examined have been found to be either definitely tuberculous or suspicious.

How Patients came to the Dispensary.

TABLE 5.

Recommended by	Pulmonary Tuberculosis		Stigmata and other forms of Tuberculosis		Under observation at the Dispensary		Non-Tuberculous		Total
	Insured	Non-Insured	Insured	Non-Insured	Insured	Non-Insured	Insured	Non-Insured	
Bristol Children's Hospital	...	1	...	...	...	...	...	..	1
Bristol Civic League	...	1	...	2	...	...	...	...	3
Bristol Dispensary	...	1	...	...	...	...	...	..	1
Bristol Education Committee	..	5	...	1	...	3	...	..	9
Bristol General Hospital	...	2	...	...	...	...	...	..	2
Bristol Insurance Committee	155	...	1	...	2	...	...	.	158
Bristol Medical Missionary Society	...	2	...	1	...	1	...	..	4
Bristol Royal Infirmary	1	1	...	...	...	...	...	..	2
Ham Green Sanatorium	...	1	...	...	..	..	...	..	1
Medical Officer of Health	12	95	2	21	3	17	...	9	159
Private Practitioners	100	75	2	6	22	17	10	2	234
Somerset County Council	2	2	1	...	...	...	..	..	5
Contact Cases	16	42	18	189	18	56	21	52	412
Total ..	286	228	24	220	45	94	31	63	991

DIAGRAM C.

Number of new patients from each district,
1914.

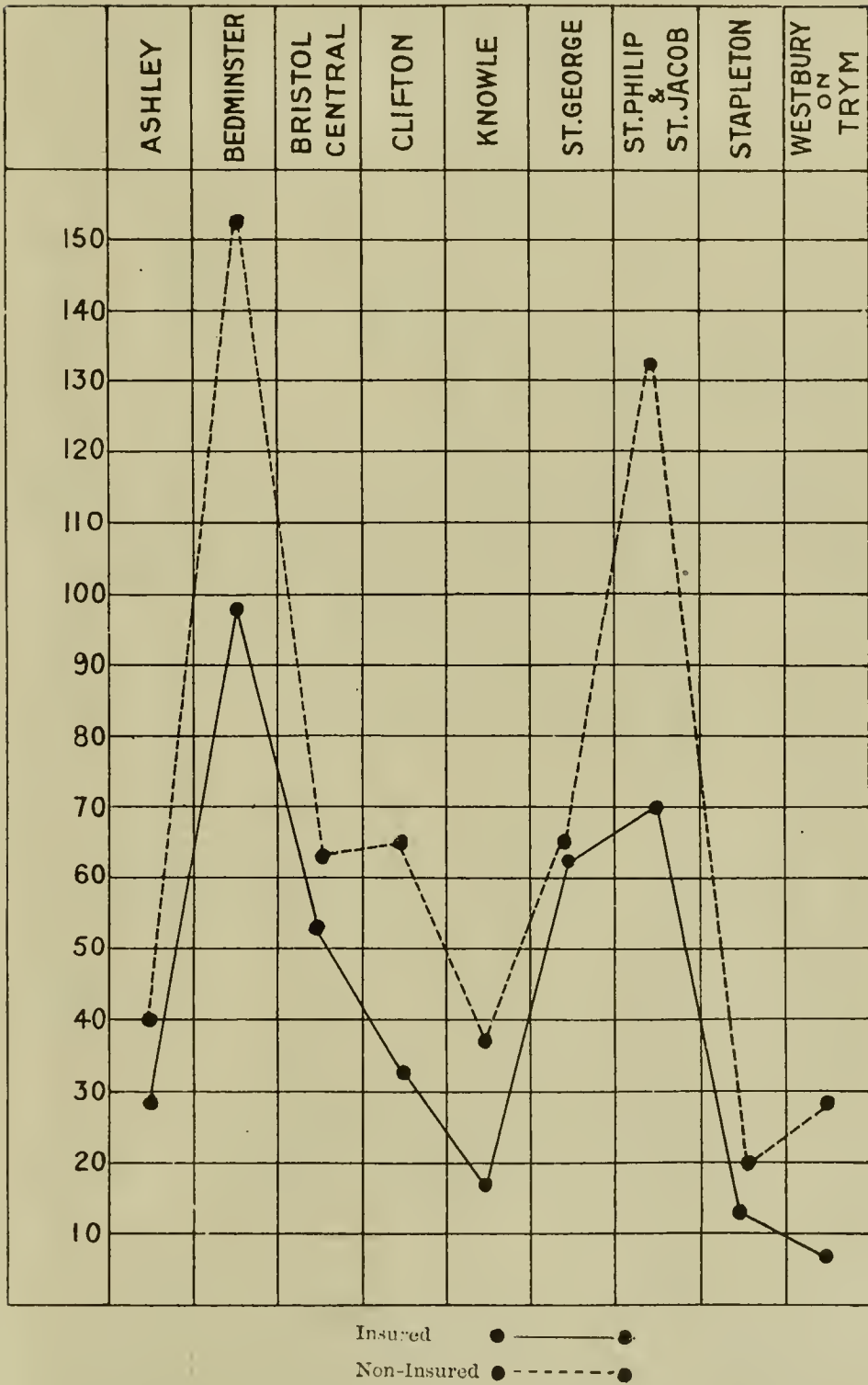


TABLE 6.

320 patients were sleeping alone in bed as follows :—

Total number of persons sleeping in same room (including the patient).

One (<i>i.e.</i> , the patient) ...	221
Two (the patient and 1 other) ...	51
Three (the patient and 2 others)	35
Four (the patient and 3 others)...	10
Five (the patient and 4 others)...	2
Six (the patient and 5 others) ...	1
	<hr/>
	320
	<hr/>

174 patients were sleeping with one other person in same bed as follows :—

Total number of persons sleeping in same room (including the patient).

Two (the patient and 1 other) ..	126
Three (the patient and 2 others)	34
Four (the patient and 3 others) ...	12
Five (the patient and 4 others) ...	1
Six (the patient and 5 others) ...	1
	<hr/>
	174
	<hr/>

24 patients were sleeping with two other persons in same bed as follows :—

Total number of persons sleeping in same room (including the patient).

Three (the patient and 2 others)	21
Four (the patient and 3 others)...	1
Five (the patient and four others)	1
Seven (the patient and six others)	1
	<hr/>
	24
	<hr/>

Housing Accommodation.

Table 7 shows the housing accommodation of the patients who attended the Dispensary during 1914.

TABLE 7.

The housing accommodation of 518 patients suffering from pulmonary tuberculosis was as follows:—

A--63 were living in homes of one room only as follows:—

Alone	...	...	...	56
With 1	other person		...	4
„ 2	„ persons		...	2
„ 3	„ „		...	1
				<hr/>
				63
				<hr/>

B—38 were living in Homes of two rooms as follows:—

With 1 other person	...	13
„ 2 „ persons	...	13
„ 3 „ „	...	10
„ 4 „ „	...	1
„ 5 „ „	...	1
		<hr/>
		38.
		<hr/>

C—44 were living in homes of three rooms as follows.—

With 1 other person	...	9
„ 2 „ persons	...	8
„ 3 „ „	...	5
„ 4 „ „	...	9
„ 5 „ „	...	4
„ 6 „ „	...	4
„ 7 „ „	...	4
„ 8 „ „	...	1
		<hr/>
		44
		<hr/>

D—63 were living in homes of four rooms as follows :—

With 1 other person	...	7
„ 2 „ persons	...	17
„ 3 „ „	...	9
„ 4 „ „	...	11
„ 5 „ „	...	7
„ 6 „ „	...	4
„ 7 „ „	...	5
„ 8 „ „	...	2
„ 9 „ „	...	1
		<hr/>
		63

E—185 were living in homes of five rooms as follows :—

With 1 other person	...	6
„ 2 „ persons	...	22
„ 3 „ „	...	33
„ 4 „ „	...	42
„ 5 „ „	...	37
„ 6 „ „	...	17
„ 7 „ „	...	9
„ 8 „ „	...	9
„ 9 „ „	...	7
„ 10 „ „	...	3
		<hr/>
		185

F—68 were living in homes of six rooms as follows ;—

With 1 other person	...	3
„ 2 „ persons	...	8
„ 3 „ „	...	7
„ 4 „ „	...	13
„ 5 „ „	...	12
„ 6 „ „	...	10
„ 7 „ „	...	7
„ 8 „ „	...	6
„ 9 „ „	...	2
		<hr/>
		68

G—25 were living in homes of seven rooms as follows:—

With 1 other person	...	1
„ 2 „ persons	...	3
„ 3 „ „	...	8
„ 4 „ „	...	5
„ 5 „ „	..	3
„ 6 „ „	...	2
„ 7 „ „	...	1
„ 8 „ „	...	1
„ 11 „ „	...	1
		<hr/>
		<u>25</u>

H—7 were living in homes of eight rooms as follows:—

With 2 other persons	...	2
With 3 „ „	...	1
With 5 „ „	...	3
With 7 „ „	...	1
		<hr/>
		<u>7</u>

I—2 were living in homes of nine rooms as follows:—

With 4 other persons	...	1
„ 8 „ „	...	1
		<hr/>
		<u>2</u>

J—3 were living in homes of ten rooms as follows:—

With 2 other persons	...	1
„ 3 „ „	...	1
„ 4 „ „	...	1
		<hr/>
		<u>3</u>

The Laboratory.

The laboratory was opened in the Portland Square building in July, but was not fully equipped for bacteriology till November.

During these five months 778 films, from 410 samples of sputum, furnished by 245 patients, were examined. Tubercle bacilli were found in 157 films; in 11 they were demonstrated on a second examination by Spengler's method; in 12 not until antiformin was used.

MIXED INFECTION.—Attention has lately been directed to this very important subject. Most authorities are agreed that it is responsible for many of the worst features of the disease. It would seem not unreasonable to hope that a systematic effort to combat or prevent this may materially improve the prognosis in many cases.

The mixed infection is in most cases derived from septic foci in the upper respiratory passages, or is acquired in the course of an epidemic of catarrhs, such as are usually prevalent in the spring and autumn. The first line of defence therefore is scrupulous attention to the teeth, fauces and nose. Negotiations are in progress to secure the services of a competent dentist for selected cases. A further measure which may prove useful is an attempt to raise the patient's resistance to those organisms which may be expected to complicate the condition sooner or later. For this purpose vaccines are prepared, first from any potentially pathogenic organisms already present in the patient's bronchi or alveoli, then from the organisms responsible for any prevalent epidemic, and finally, from any common oral organisms which may be shown to be commonly present

in the sputum of the tuberculous, and to be injurious to them. The chief of this class is the pneumococcus, which is present in over 60 per cent. of advanced cases, and which is shown to be pathogenic by the marked focal reaction which often follows the administration of a vaccine made from it. So too the majority of streptococci isolated from the sputum of these cases do not give the reactions of the streptococcus pyogenes, and are probably derived from the mouth or teeth, being none the less pathogenic.

The following table gives the results of cultural examinations of 18 samples from 17 patients. Besides this, 44 samples were examined by Gram's and Muir's stains. Among these the pneumococcus was seen twice, when it failed to be isolated by culture. The cultures were all made in the first instance on blood-agar, +10 Eyre's scale. It was not then possible to identify the organisms fully; they are grouped according to their morphological characters, and their mode of growth on agar, blood-agar, and broth. The headings must be understood as being "group"-headings only. The figures are too small to be of any value, but they tally well with those of Allen, Morland and others.

I.—Tubercle Bacilli Present.

LUNG CONDITION.		M. CATARRHALIS	STREPTOCOCCI	STAPHYLOCOCCI	PNEUMOCOCCI	M. TETRAGENUS	B. INFLUENZÆ	DIPHTHEROIDS	COLIFORM	OTHERS	TOTAL	PRESENT CONDITION.
<i>A.—Early Acute.</i>												
1	F.C. patchy, broncho-pneumonic, severe ...	+	+	+	—	—	—	—	—	—	3	Critical
2	V.S. do., mod., severe ...	...	+	+	+	—	—	—	—	—	4	Improving
<i>B.—Advanced, severe constitutional disturbance</i>												
*3	C.A. Cavitation, consolidation and fever ...	—	—	—	—	—	—	—	—	+	*1	Temporary improvement, with relapses
4	A.G. ?Cavitation ...	...	+	+	+	—	—	—	—	—	4	Improving
5	P.H. Cavities, fever, cachectic ...	...	+	+	+	+	—	+	—	—	5	Marked improvement
6	R.G. Cavities, high fever, else good ...	...	+	+	+	—	—	—	—	—	3	Poor
7	S.W. Cavities, high fever, cachectic ...	...	+	+	+	+	—	—	+	—	6	Very poor
8	M.P. Cavities, cachectic, laryngitis ...	...	—	—	+	+	+	—	—	—	4	Very poor
<i>C.—Advanced Chronic.</i>												
9	R.C. ?Cavity, slow convalescence, interrupted by chronic catarrh	+	+	+	seen in 2 hrs	—	—	—	—	—	3	Convalescent, but not strong
10	C.H. Cavity, cachectic, slow convalescence, catarrh	+	+	—	seen	—	—	—	—	—	3	Convalescent, but nutrition very poor
11	M.S. Cavities, pyorrhœa due to streptococcus and arthritis, epidemic catarrh, else very good	+	+	—	+	—	—	—	—	—	3	Convalescent
12	R.D. Cavities, very good ...	...	—	+	+	+	+	+	—	—	6	Very fair
13	W.D. ?Cavity, bronchitic attacks (2 exams.)	+	+	—	+	—	—	+	—	—	4	Frequent relapses
14	A.D. Fibroid, with cavity and otitis media, else very good	+	—	—	—	—	—	—	—	—	1	Excellent
15	E.S. Infiltration of three apices; bronchitis; else very good	+	—	—	+	—	—	—	—	—	2	Good
		11	10	9	11	4	2	3	1	1	52	

II.—Not Tuberculous.

16	R.H. Broncho-pneumonic patches, no tuberculin reaction	—	+	+	+	+	—	+	—	—	5	Excellent
17	J.W.G. Chronic bronchitis ...	...	+	+	—	+	—	—	—	—	3	Acute attack

* Case 1.—Very considerable and local general improvement with autogenous vaccines; after leaving Clift House she contracted pneumococcus-influenza infection, and died in three weeks.

* Case 3.—The organism found in pure culture in this case was a bacillus, varying in length from 0.7 to 2.0 and 0.3 in breadth. It grew on blood-agar, not on agar; nor could it be sub-cultured in broth. It was Gram +, grew in clumps and short chains, was non-motile, had no capsule, and formed spores. The colonies on blood-agar were about one-tenth inch in diameter, flat, round, translucent, with a green colour, and were visible in 24 hours. Patient died in January, 1915.

* Case 16.—The micrococcus tetragenus has disappeared after vaccine treatment. She is now receiving a streptococcus-catarrhalis vaccine.

Thus, from 15 severe cases (all but one inmates of Clift House Hospital for advanced cases), 52 organisms were isolated; in reality, more; for two types of streptococcus were several times found together. This gives an average of three or four invaders each. Vaccines were prepared from 30 of these for 8 patients, including the two non-tuberculous cases, but it is too early to report results.

Sanatorium Treatment.

The following tables show the result of Sanatorium treatment in 1912. Twenty-one patients were sent to Winsley Sanatorium. Their present condition is as follows:—

WORKING CONDITION.			ARREST OF DISEASE.		
Lost sight of	...	3	Not ascertained	...	5
Dead	...	3	Probably arrested	...	4
Not working	...	3	Worse or dead	...	8
Light work	...	1	Arrested	...	4
Winsley	...	1			—
Clift House	...	1			21
Full work	...	9			
		—			
		21			

The number of cases is very small, but the results seem good until we note the fact that in no fewer than five cases later developments practically negative the diagnosis of phthisis. All five are at work, and in four the disease is "arrested." Consequently, the number of truly tuberculous patients still at work is only 4 out of 13, instead of 9 out of 18, 30 per cent., instead of 50 per cent.; and two of these four have not presented themselves for examination, so, even in these there is the possibility of mistaken diagnosis. These figures, small as they are, illustrate the importance of revising the diagnosis from time to time if we are ever to form a just idea of the value of any anti-tuberculosis measures. "Hamman, by the use of the subcutaneous test, was able to send home 74 per cent. of his

sanatorium cases"—(Clive Rivière). It is inevitable that a certain number of non-phthisical cases should find their way into Sanatorium. It is just at the stage when the diagnosis is most difficult that permanent benefit is to be expected, and the patients must be given the benefit of the doubt; but it is no less undesirable that they should find their way into the statistics.

The moral to be drawn from these figures is not that sanatorium treatment is useless. No one who has seen the immense improvement it works in almost every class of case could doubt its value. The defect in the scheme of treatment, lies not in the Sanatorium, but in the insufficient provision for after-care, especially nourishment. Nourishment grants are given, and on a generous scale, to cases whose means are specially limited, but the line is drawn far too low. If feeding up is recognised as a factor of importance, even under the favourable conditions of the Sanatorium. "*a fortiori*" must it be so when the patients return to the less favourable imitation of sanatorium régime which they may be able to institute in their homes. It would be a true economy—since all expenditure that fails of a lasting result is waste—if a grant of nourishment were made as a matter of routine to all patients after their stay at the Sanatorium, cancelling it wholly or in part in such cases as are really well able to provide it for themselves. This would, no doubt, entail a considerable expense, but it would be well spent in reaping the harvest of the Sanatorium, which now is almost entirely blighted by the fatal relapse.

Tuberculin.

Of Tuberculin it is impossible to say anything. It has been given to a considerable number of cases. Bardswell, in a recent paper, concludes as an "interim opinion" that it enables a certain number of cases who would otherwise do well to do better, especially in the

way of getting rid of their bacilli. He considers that the only way to reach a definite opinion as to its value is by noting the ultimate effect of prolonged administrations, and to this end there must be close co-operation between the Sanatoria and Dispensaries, so that a continuous treatment may be carried out and a continuous record of the patients' treatment and progress, clinically and bacteriologically, be easily collated. Such co-operation already exists to some extent between the Dispensaries and the Sanatoria receiving our patients, but it is desirable that fuller reports should be sent with patients to the Sanatoria, and from the Sanatoria to the Dispensaries on their return.

Nothing is to be inferred from the statistics of Tuberculin treated patients at the Dispensary, as there are no figures of pre-tuberculin dispensary treatment under the same auspices with which to compare them.

R. A. P. HILL, M.D., D.P.H.,

Acting Tuberculosis Officer.

THE CITY HOSPITALS.

Ham Green Hospital.

Novers Hill Hospital.

Ham Green Sanatorium.

These Institutions have, during the year 1914, been fully employed. Ham Green has been utilised for Military as well as for Civil cases.

At Novers Hill Hospital the imperfect nature of the means for effectually dealing with disease, especially the absence of sufficient observation wards, the lack of a proper bathing and discharge block, and the insufficient accommodation for the staff, noted in last year's report still call for attention. The dilapidated cottages which once afforded some relief in these respects, and which have not been replaced, though now useless, should be removed, and the proposed extensions proceeded with.

These much needed extensions comprising :—

One Ward Pavilion, containing 2 wards of 10 beds each.

One Isolation Pavilion, containing 4 single bed wards, together with discharge block and offices.

Administration Building for an additional 20 beds, including provision stores, boiler house, work-room, etc.

Were accepted by the City Council on 1st January, 1915, and it was Resolved :—

“ That the Committee be authorised to apply to the Local Government Board, for their sanction to the borrowing of the sum of £7,704 in connection with the extensions to the Novers Hill Hospital, and to affix the City Seal to all documents necessary to carry their recommendations into effect.”

The plans, etc., have been approved by the Local Government Board, but no progress has as yet resulted. Until this is done, the City has no Small-pox accommodation it can contemplate with any pride, or even with a feeling of full security.

In the absence of Small-pox, Novers Hill has, during 1914, acted as a relief Hospital for Scarlet Fever.

CASES NOTIFIED AMONGST TROOPS IN BRISTOL.

Notifiable Diseases.

YEAR 1914.

DISEASE	Total Cases	Removed	REMARKS
Enteric Fever	7	2nd Southern General Hospital	5 of these cases were introduced from Chipping Sodbury, Perth, Dublin, Codford, and Ypres.
Diphtheria ... "Contacts"...	6 3	1 at 2nd S.G. Hospital & 8 at Ham Green	Contacts did not develop Diphtheria.
Scarlet Fever	5	Ham Green	1 case was a Nurse at the 2nd Southern Gen. Hosptl. (Southmead)
Erysipelas ...	1	2nd Southern General Hospital	

D. S. DAVIES, M.D., L.L.D., D.P.H.,

*General Medical Superintendent
City Hospitals.*

ISOLATION HOSPITAL ACCOMMODATION IN BRISTOL SINCE 1886.

	Guardians	St. Philip	St. George	Clift House.	Novers Hill.	Ham Green	Population of City	Total	Proportion of Beds per 1,000 Population.
1886	120	28					214,000	148	0.7
1894	60	48		30	50		226,000	188	0.8
1898	60	Closed	6	Closed	50		316,000	116	0.3
1900	Closed	24	6	22	50	76	324,000	156	0.5
1901		24	Closed	22	35	76	329,000	157	0.4
1902		Closed		22	35	76	334,000	133	0.3
1905				22	35	134	358,000	191	0.5
1906				Closed	35	134	363,000	169	0.4
1913					35	134	361,000	169	0.4
1914					35	134	363,000	169	0.4

CITY OF BRISTOL.**HAM GREEN HOSPITAL.**

**Report of the Resident Medical Officer
for the Year 1914.**

TO THE MEMBERS OF THE COMMITTEE OF MANAGEMENT.

GENTLEMEN,

I have the honour to submit to you the Sixteenth Annual Report of the work of this Institution for the year ending December 31st, 1914.

There were 169 patients in Hospital at the beginning of the year. 1411 were admitted, 1415 cases were discharged, 31 died, leaving 134 in hospital at the end of the year; 1580 patients were therefore under treatment during the year, a number considerably in excess of any previous year.

The average death-rate for all cases was 2·2 per cent.

SCARLET FEVER.

928 cases were admitted, 939 discharged, and 7 died, giving a death-rate of 0·7 per cent. The disease was of a very mild type, on the whole, only 2½ per cent. suffering from the septic type.

The average stay in hospital for these cases was 34·1 days.

Eleven patients apparently carried infection home with them, out of 965 cases of scarlet fever discharged, (including 26 mixed infections).

This gives a return case rate of 1·1 per cent.

The following table shows that the policy of shortening the quarantine period and ignoring desquamation during the last four years, has been followed by a slight average *reduction* on the previous low rates.

Year	Average Stay in Hospital		Return Cases Rate per cent.	
1904	...	45·8 days	...	2·4
1905	...	51·7 „	...	2·0
1906	...	57·7 „	...	1·6
1907	...	56·2 „	...	1·0
1908	...	58·4 „	...	2·3
1909	..	60·1 „	...	2·7
1910	...	53·0 „	..	1·7
1911	...	48 0 „	...	1·4
1912	...	43·1 „	...	0·8
1913	...	34·9 „	...	1·4
1914	...	34 1 „	..	1·1

Bacteriological examination of all cases admitted revealed the presence of Diphtheria bacilli in 102 cases, or 10·5 per cent.

The segregation of these cases has, during the past three years, been successful in preventing the occurrence of any cases of post scarlatinal diphtheria.

DIPHTHERIA.

426 cases of Diphtheria were admitted during the year: 375 were discharged and 19 died, four of which deaths were within forty-eight hours of admission. Reckoned on the number of cases discharged, 22 were carrier cases, and 353 showed clinical evidence of the disease.

The fatality rate was 4·8 per cent., compared with a previous average for fifteen years of 6·2 per cent.

Site of Disease.

Throat	...	...	307
Throat and Nose	...	...	33
Throat and Larynx	...	...	26
Nose	...	...	19
Larynx	...	...	6
Ear	...	...	3
			<hr/>
			394

Of those with Laryngeal involvement, viz. 32, 12 cases or 37 per cent., required operative measures to prevent suffocation.

Intubated and Tracheotomized...			1
Tracheotomized	...	...	11
			<hr/>
			12

One death occurred among these patients. 74 cases, or 18 per cent., received some antitoxin before admission.

Post Diphtheritic Paralysis occurred in 30 patients, or 8 per cent. of all clinical cases, as follows:

Soft Palate	...	...	20
Eye Muscles	...	...	6
Pharyngeal Muscles...	...	...	1
Limb Muscles	...	..	2
Diaphragm	...	...	1
			<hr/>
			30

The average stay in Hospital was 38.3 days for those who recovered.

MIXED INFECTIONS.

Twenty-seven patients were found to be suffering from a second disease on admission.

Scarlet Fever and Clinical Diphtheria	8 (1 died)
„ „ Whooping Cough	1
„ „ Chicken Pox	2
„ „ Ringworm	4
Diphtheria „ Scarlet Fever	7
„ „ Enteric Fever	1
„ „ Ringworm	1
„ „ Whooping Cough	1
„ „ Mumps ...	1
Enteric Fever „ Whooping Cough	1

[The above figures are exclusive of 102 cases of Scarlet Fever found on examination to be harbouring diphtheria bacilli, without showing definite clinical evidence of diphtheria].

Ten patients were incubating a second disease on admission, the infection of which was contracted before admission.

Scarlet Fever, developed Mumps	... 1
„ „ Chicken Pox	... 2
„ „ Rubella	... 2
Diphtheria „ Whooping Cough	2
„ „ Mumps	... 1
„ „ Chicken Pox	... 1
„ „ Rubella	... 1

In spite of all these introductions of secondary diseases into the wards, *no patient contracted a second disease* while in hospital during the whole year.

This very satisfactory result is due to the method of Aseptic nursing and fresh air treatment, fully described in my former reports.

The diagnosis was considered to be in error in the following cases—

Notified as Scarlet Fever, proved to be—

Rubella	...	...	3
Drug Rash	...	...	1
Follicular Tonsillitis	...	...	2
Measles	...	...	2
Simple Erythema	...	...	1
Broncho-Pneumonia	...	...	1 (died)
No evidence of any disease	...	...	5

Notified as Diphtheria, proved to be—

Follicular Tonsillitis	...	...	5
Scarlet Fever	...	...	2
Lobar Pneumonia	...	...	1

Notified as Enteric Fever, proved to be—

Diarrhœa	...	...	6
Gastro-Enteritis	...	...	2
Scarlet Fever	...	...	1

One observation case for Plague proved to be a case of Venereal bubo.

ENTERIC FEVER SUMMARY.

Forty cases of this disease were admitted and 32 discharged. Three deaths occurred [male (aged 24), female (aged 40), female child (aged 12)]. Two suffered from relapse, 3 from Broncho-Pneumonia, 3 from Hæmorrhage, 2 Nephritis, one (died)—abortion, five months.

Aseptic Nursing and Fresh Air Treatment for the Prevention of Cross Infection.

The methods for the prevention of cross-infection adopted in this Hospital are as follows:—

Every patient on admission is provided with the following articles, which are kept in a locker beside the bed, and are exclusively reserved for his use during the time he is in hospital: towel, face flannel, piece of soap, comb and throat syringe. All eating utensils are boiled after each meal; sanitary utensils are cleansed in boiling water after use.

The nurses, when washing the patients or doing any treatment for them, wear thick canvas-lined rubber gloves; before going on to the next patient the gloves are immersed in Perchloride lotion without removing them from the hands. By these methods the carriage of living organisms from one patient to the next, by hands or fomites, is prevented.

The patients are kept in bed for about a fortnight after admission. If they are incubating a second disease it will have developed by that time; or, if the case is doubtful, a certain diagnosis can probably be made by then.

In these acute wards the windows are kept wide open all the year round, and there is thus very free ventilation all the time. If the weather is cold additional bed clothing and hot water bottles are provided, so that the patients do not feel the cold. This very free ventilation tends to eliminate the possibility of aerial carriage of infection, which appears to occur to some extent with measles and chicken-pox. The full exposure to the air seems to exercise an extremely beneficial effect on all febrile conditions, including broncho-pneumonia.

If on admission a patient is found to have a second disease, or subsequently develops one, he is placed in a side ward and nursed by the same staff as the general ward.

On ordinary methods the immediate removal of a patient who developed a second disease to an isolation ward was ineffective in preventing the occurrence of secondary cases, as the infection was conveyed previously to the secondary disease showing itself, most diseases undoubtedly being most infectious at the very onset. During 1914, out of 1,411 admissions of fever cases, *not one* patient contracted a second disease while in hospital, in spite of the introduction of many secondary diseases.

It should be clearly understood that this method does not expose the patients to any increased risks, as, with the exception of diphtheria carriers in the scarlet fever wards, any patient who is definitely known to have a secondary disease is at once removed out of the main ward into a side ward, from which, with these methods, there is no risk of conveying infection to the main wards.

These methods were devised to prevent patients who were suffering from a secondary unrecognised disease, or who might develop a second disease after admission—the infection of which was contracted before admission—infesting others before they could be taken to an isolation ward. This has always been the chief difficulty in a hospital drawing its cases from a large city where many infectious diseases are always endemic, as the spread of infection from ward to ward practically never occurred.

Diphtheria carriers in a scarlet fever ward are marked with a band round their arms and are not allowed to mix or eat with the other patients, but sleep in the same ward. Although numerous carriers are discovered by swabbing every scarlet fever patient (throat and nose) these simple precautions have been effective in preventing any case of post-scarlatina diphtheria for over three years.

VACCINATION STATISTICS.

Unvaccinated	...	291—20·1 per cent.
One Mark	...	283—19·5 „
Two Marks	...	300—20·7 „
Three „	...	289—19·9 „
Four „	...	257—17·7 „
Five „	...	4— '27 „
Six „	!	4— '27 „
Re-Vaccinated	...	4— '27 „
Query ...	...	14— '9 „

STAFF ILLNESS.

Two nurses contracted enteric fever, one enteric and scarlet fever simultaneously; four nurses contracted scarlet fever, two measles, and one diphtheria. All made satisfactory recoveries. These accounted for 385 days off duty. Minor complaints among the nursing and domestic staff accounted for 363 days' loss of service. Total 748. Average staff 70. Average loss of service per annum from illness, 10·7 days.

GENERAL.

27,629 articles were disinfected in the steam sterilizer.

208,340 articles were washed in the hospital laundry.

13,849 eggs were obtained from the hospital fowls.

In conclusion, I beg to acknowledge Miss Garden's invaluable co-operation in administering the Hospital, and the good work done by the nursing, working, and domestic staff.

B. A. PETERS, M.D., D.P.H.,

Resident Medical Officer.

HAM GREEN HOSPITAL.

TABLE I.

Admissions and Discharges during 1914.

DISEASE.	Remaining in Hospital end of 1913.	Admissions as Notified	DISCHARGED.		Remaining in Hospital end of 1914
			Recovered	Died.	
Scarlet Fever ...	116	928	939	7	77
Diphtheria ...	46	426	375	19	53
Enteric Fever ...	7	40	29	3	4
Mixed Infections and Other Diseases ...	..	17	72	2	...
TOTALS ...	169	1411	1415	31	134

HAM GREEN HOSPITAL.

TABLE II.

Showing Age and Sex of those Discharged during 1914, with Fatality Rate.

Diphtheria.									
Scarlet Fever.									
Age	MALE.			FEMALE.			BOTH SEXES.		
	Recovered	Died	Fatality per cent	Recovered	Died	Fatality per cent	Recovered	Died	Fatality per cent
0-1	1	...	...	2	...	...	3	...	...
1-5	63	...	...	74	4	5.1	137	4	2.8
5-10	180	1	.5	202	2	.9	382	3	.7
10-15	120	...	...	119	...	...	239	...	...
15-20	40	...	...	48	...	...	88	...	...
Over 20	29	...	...	61	...	...	90	...	...
Totals	433	1	.2	506	6	1.1	939	7	.7

HAM GREEN HOSPITAL.
TABLE III.

Stage of the Disease when Patients were admitted to Hospital.

DISEASE.	DAYS OF FIRST WEEK.							First Week	Second Week and after.	Carrier Cases
	1	2	3	4	5	6	7			
Scarlet Fever ...	...	2	74	177	151	145	95	70	228	4
Recovered	2	73	174	150	145	93	70	707	7	...
Died ...	0	1	3	1	0	2	0	7	0	...
Mortality } per cent.	0	1.3	1.6	.6	0	2.2	0	0.9	0.0	..
Diphtheria ...	...	1	34	194	89	55	29	33	35	24
Recovered	1	33	93	83	53	24	31	318	33	...
Died ...	0	1	1	6	2	5	2	17	2	...
Mortality } per cent.	0	2.9	1.06	6.7	1.8	16.8	6.06	5.3	5.7	...

HAM GREEN HOSPITAL.

TABLE IV.

Scarlet Fever.

Complications observed in Patients Discharged during 1914.

	Otorrhœa	Primary Rhinorrhœa	Cervical Adenitis	Albumin- uria.	Nephritis	Arthritis	Endocar- ditis	Mastoiditis	Relapse
Total Cases	57	31	37	24	10	26	6	4	6
Percentage	6.02	3.2	3.9	2.5	1.05	2.7	.6	.4	.6

HAM GREEN HOSPITAL.

TABLE V.

Monthly Admissions as Notified and Daily Average number in Hospital.

1914.	Scarlet Fever	Diphtheria	Enteric Fever	Other Diseases.	Monthly Total Admissions	Average Daily Number in Hospital in each Month.
January	...	...	...	...	...	175
February	93	29	3	1	126	157
March	110	30	3	1	144	168
April	112	30	2	3	147	137
May	89	19	1	3	112	142
June	57	23	17	...	97	109
July	67	15	4	...	86	109
August	77	28	1	3	109	129
September	55	28	1	1	85	113
October	60	41	...	...	101	142
November	66	74	4	2	146	157
December	72	72	1	1	146	138
	70	37	3	2	112	
TOTAL	928	426	40	17	1411	139

HAM GREEN HOSPITAL.

Statistics for each Year since Opening of Hospital.

TABLE VI.

ADMISSIONS CLASSIFIED ACCORDING TO DISEASE.

YEAR.	Scarlet Fever	Diphtheria	Enteric Fever	Mixed Infections.	Other Diseases and Quarantine.	TOTAL.
1899	194	4	21	...	7	226
From July 24 th						
1900	571	70	38	...	...	679
1901	452	27	44	...	4	527
1902	536	128	42	21	...	727
1903	370	323	11	11	...	715
1904	374	317	26	2	...	719
1905	476	310	...	19	12	817
1906	439	342	8	9	19	817
1907	370	445	...	43	31	889
1908	219	513	13	11	21	777
1909	414	359	8	23	49	853
1910	709	308	15	...	4	1,036
1911	478	338	70	11	...	897
1912	345	439	36	25	...	865
1913	500	486	20	...	1	1,096
1914	928	426	40	12	5	1,411
Totals	7,375	4,835	392	187	153	13,051

DISCHARGES AND DEATHS.

YEAR.	Scarlet Fever.		Diphtheria.		Enteric Fever.		Mixed infections and other Diseases.	
	Dis-charges	Deaths	Dis-charges	Deaths	Dis-charges	Deaths.	Dis-charges	Deaths
1899	127	5	3	...	3	...	5	...
1900	485	15	50	12	33	1	...	...
1901	452	10	34	1	39	5	...	...
1902	540	11	67	14	33	4	18	2
1903	377	4	308	17	17	2	12	...
1904	326	7	310	20	24	2	2	...
1905	426	16	271	13	...	...	25	5
1906	433	12	314	20	3	1	28	2
1907	405	15	387	34	4	...	58	1
1908	197	4	516	28	11	...	41	3
1909	420	9	359	14	6	...	63	5
1910	572	10	285	18	13	...	74	1
1911	492	5	292	20	52	3	94	9
1912	333	5	358	28	32	1	61	2
1913	408	...	460	7	16	...	47	1
1914	939	7	375	19	29	3	72	2
Totals	6,932	135	4,389	265	315	22	600	33
Average Fatality per cent.	1.9		5.6		6.5		5.2	

HAM GREEN AND CLIFT HOUSE SANATORIA.

At Ham Green Sanatorium 15 patients were undergoing treatment at the beginning of the year; 89 were admitted; and, with 14 cases transferred from Clift House, 100 were discharged, leaving eighteen in the Sanatorium at the end of the year.

At Clift House Sanatorium, opened in April, 92 were admitted, 14 transferred to Ham Green, and 54 discharged, leaving 24 in the Sanatorium at the end of the year.

AGE AND SEX OF PATIENTS DISCHARGED.

5-10	...	...	13	7
10-15	...	...	14	15
15-20	...	...	3	18
20-25	...	...	7	17
25-30	...	...	6	18
30-35	...	...	1	12
35-40	...	...	3	8
40-45	...	...	4	4
Over 45	...	...	3	1
			54	100

Twelve died at Clift House.

The average stay in Hospital was 81 days for those who recovered.

OCCUPATIONS OF THOSE DISCHARGED.

Housewife	...	22	Machinist	...	2
School	...	48	Labourer	...	4
Domestic	..	9	Packer	...	1
Clerk	...	3	Docker	...	2
Porter	...	3	Paperhanger	...	1
Dressmaker	...	2	Nurse	...	1
Cook	...	2	Corset Maker	...	1
S. A. Officer	...	1	Railway Porter	...	1
Insurance Agent...		1	Car Driver	...	1
Draper's Assistant		3	Cigarette Maker	...	2
Printer	...	1	Boot Maker	...	1
Paper Factory	...	1	Bottle Washer	...	1
Book Folder	...	1	Chocolate Packer		1
Envelope Folder...		1	Traveller	...	1
Bag Maker	...	2	Painter	...	1
Police Officer	...	7	Corset Maker	...	1
Box Maker	...	4	Not Stated	...	27

PATIENTS IN STAGE I (64).—In forty-eight of these cases the disease was apparently arrested and the patients restored to full working capacity, and in sixteen the condition was improved; four were removed against advice, three left against advice, and one owing to home troubles. The average gain in weight for this group was 12 lbs.

STAGE II. (35).—In eight the disease was arrested, in twenty three improved, and not improved in four; four left at own request, one because husband enlisted, and two were transferred to Winsley. Average gain in weight 11 lbs.

STAGE III. (55).—The disease was apparently arrested in four cases, improved in twenty-two, not improved in eleven, and 12 died; three left at their own request, one removed by mother against advice, one left to enlist, one was a case of Bronchiectasis not Tubercle, and one Pneumonia, Pleurisy and Pericarditis. Average gain in weight 7 lbs.

TABLE I.

The following Table records the condition of Patients after undergoing Sanatoria Treatment :—

State of Patient on Admission.		Arrested	Improved	Not Improved.	Died
Stage I. ...	...	48	16	...	...
Stage II.	...	8	23	4	...
Stage III.	...	4	22	11	12
Total	...	60	61	15	12

Ham Green and Clift House Sanatoria.

1914.

TABLE II.

HAM GREEN.

Month			Total Monthly Admissions	Average Daily No. in Hospital in each Month
January	...	...	9	15
February	...	...	5	18
March	...	...	4	19
April	...	...	7	19
May	...	...	4	20
June	...	...	3	20
July	...	...	22	20
August	...	...	13	37
September	...	...	10	37
October	...	...	9	38
November	...	...	2	31
December	...	...	1	20
Total			89	24

CLIFT HOUSE.

Month			Total Monthly Admissions	Average Daily No. in Hospital in each Month
Opened in				
April, 1914	...	...	15	9
May	...	...	10	21
June	...	...	13	25
July	...	...	15	26
August	...	...	5	27
September	...	...	15	25
October	...	...	8	25
November	...	...	7	24
December	...	...	4	25
Total			92	23

B. A. PETERS, M.D., D.P.H.,

Resident Medical Officer.

NOYERS HILL HOSPITAL.

**Medical Attendant's Report for the Year
ending December 31st, 1914.**

SCARLET FEVER

331 patients were admitted during the year, 40 remaining under treatment from the year 1913, making a total of 379. Of these 326 were discharged in due course, 3 died, and 50 remained.

Amongst those admitted was a Flemish emigrant woman, with her child, sent in for observation from the ss. "Royal Edward" at Avonmouth. The child developed Scarlet Fever on the eighth day after admission. Including also amongst those admitted was a member of the nursing staff, who contracted the disease in the performance of her duties.

FATAL CASES.

The cause of death in each of the three cases: One developed Meningitis; another had Double Pneumonia; and the last was seriously ill on admission, suffering from a very aggravated form of Scarlatina Anginosa, complicated with Diphtheria.

Like the preceding year, the majority of the cases were of a very mild form, but it will be seen from the following list that a large number were either admitted with or subsequently developed nasal and aural discharges, and found to be infected with diphtheria in a more or less severe form. It may also be noticed that there were seven cases of Chicken-pox, one of Whooping Cough, and seven of Measles under treatment, all of which had to be kept in the same wards, mixed up with others not similarly suffering, owing to the want of isolating accommodation.

The following is a list of complications and sequelæ of the usual character :—

Albuminuria or Nephritis	...	...	13
Axillary Abscess	...	...	1
Cerebral Meningitis	...	...	1
Glandular Abscesses	...	...	7
Heart Trouble	...	...	6
Otorrhœa	...	...	23
Pneumonia	...	...	1
Onychia (septic)	...	...	2
Rheumatism	...	...	7
Rhinitis or Rhinorrhœa	...	...	76
Relapse or Secondary rash	...	...	5

Found to be complicated with Diphtheria, 60, viz.:—

Throat	...	...	3
Nose	...	...	50
Ears	...	...	7
			<hr/> 60

Other diseases under treatment during the year, but not attributable to Scarlet Fever :—

Chicken-pox	...	...	7
Developed Scarlet Fever after admission			7
Dirty Heads—Nits and Lice	...	...	60
Eczema	...	...	4
Epilepsy	...	...	1
Erythema	...	...	3
Herpes	...	...	4
Measles	...	...	7
Psoriasis	...	...	1
Return Cases	...	...	2
Ringworm—Scalp and Neck	...	...	2
Stomatitis	...	...	1
Scalds and Burns on admission	...		3
Abscess of Elbow, notified as Scarlet Fever			1
Whooping Cough	...	...	1

Vaccinations.

1	had	4	extra large	marks
1	„	3	„	„
1	„	1	„	mark
1	„	8	very good or large	marks
2	„	5	„	„
20	„	4	„	„
53	„	3	„	„
32	„	2	„	„
49	„	1	„	mark
2	„	4	moderate or medium	marks
10	„	3	„	„
7	„	2	„	„
18	„	1	„	mark
3	„	4	poor or indistinct	marks
9	„	3	„	„
7	„	2	„	„
18	„	1	„	mark
3	said to have been vaccinated, but had	no	marks	
94	were not vaccinated			
4	of the above had been successfully re-vaccinated.			

I tender very best thanks to the Matron and Nursing Staff for their kind help and the great interest they have always taken in performing their respective duties.

G. C. PAULI, M.R.C.S., L.R.C.P.,

Visiting Medical Attendant.

PART III.

REPORT OF THE CHIEF INSPECTOR OF NUISANCES.

PUBLIC HEALTH DEPARTMENT,

40 PRINCE STREET,

February, 1915.

1914.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH
COMMITTEE.

GENTLEMEN,

I have once again the honour of submitting the following brief report, with summaries, showing the amount of work effected in this department during the year 1914.

The complaints and applications received at the Office numbered 1,329, as against 1,403 in the previous year (a decrease of 74), all of which were duly inquired into as quickly as possible, and wherever a nuisance existed, steps were immediately taken for its abatement. In 304 instances no nuisance was found, so that no action was necessary; this works out at 22·87 per cent. of the whole. Last year the number equalled 23·09 of the whole. A considerable number of the applications were from persons changing residence who wished to have some guarantee that the house they proposed to take was in good sanitary condition, and in this way a considerable amount of good work has been accomplished. People will not take a house when the drains, &c., are known to be defective, and the owners prefer doing whatever is necessary to losing the prospect of a tenant. The public also now recognise that complaints are always treated as strictly confidential.

3,313 cases of notifiable infectious disease, such as Scarlet Fever and Diphtheria, were duly inquired into by the District Inspectors and the results entered on the case cards as required by the Medical Officer of Health. This is an increase of 472 on the number notified last year (2841). 9,308 visits were made to infected houses, as in many instances the cases nursed at home require frequent visiting. When children attend the Elementary Schools, cards are made out and sent to the Head Teacher of the School, as well as to the School Medical Officer of the Education Committee.

3,739 infected houses were disinfected, and 94,935 articles of bedding, clothing, &c., removed, disinfected by steam, and returned to the houses. 848 similar articles were destroyed, their condition being such that disinfection was impossible.

The clothing of patients removed to Ham Green and Novers Hill Hospitals is not included in the above totals, as the Hospitals are both equipped with a Washington Lyons Steam Disinfector.

Non-Notifiable Infectious Diseases, such as Measles, Whooping-Cough, Chicken-pox, Mumps, &c., were also visited on receipt of notification from the Elementary Schools that certain children were absent from school in consequence of any of these diseases. 3,273 visits were thus paid, and leaflets of precautions given to the parents. In acute cases the parents were advised to secure proper medical attendance, and often did so. Disinfection is also offered and carried out wherever considered advisable, or of any practical use.

Small-pox.

No case of Small-pox notified during the year.

Tuberculosis.

This terrible disease is still very much in evidence, 810 Pulmonary and 322 non-Pulmonary cases having been notified during the year, and every case, except where the medical attendant did not desire it, has been visited by the District Inspectors and careful notes made of the conditions of the homes and surroundings.

The number of deaths during the year was 404 Pulmonary and 99 non-Pulmonary.

Disinfection of rooms, bedding, &c., is carried out in all cases after death or removal from one house to another, and in acute cases whenever considered necessary, and disinfectants for sputum flasks are also supplied gratuitously to the poor patients. The continued visiting of these cases is very depressing, and I hope that the energetic action now being taken throughout the country may have the effect of at least reducing the prevalence of this disease.

Notices to Abate Nuisances.

2,614 informal or preliminary notices were served, and as usual were so successful that only 394 statutory notices were required to enforce compliance with the informal notices. These statutory notices were all complied with, except four. These four were summoned; but before the day of hearing, the work was done, and the cases withdrawn on payment of costs.

In addition to the written notices, a considerable number of verbal requests were made to property owners, with satisfactory results.

Drain testing has again occupied a considerable portion of the Inspectors' time, the smoke test having been applied 1,122 times, besides a large number of water and chemical tests.

A summary of the work effected by the whole of the Inspectors is appended (Table I.)

By arrangement with the Board of Guardians the Masters at each of the Workhouses have for some time past given notice to the Medical Officer of Health of the removal, for burial by friends or relations, of the bodies of persons dying in the Workhouses. These notices give particulars as to where the body has been taken, together with the name and address of the undertaker. Your Inspectors then see that the body is not kept about for any length of time, as was often the case previously, chiefly for the purpose of going round with the hat. 277 intimations of these removals were received during the year.

Houses Let in Lodgings, or Tenement Houses.

325 May Notices for Limewashing and Cleansing of these houses were served in accordance with the Bye-Laws, and resulted in the cleansing of 245 rooms and 68 passages and stairs. A considerable number of these houses have been taken off the register for various reasons and others are now being inspected and measured up to take their place.

Smoke Abatement.

One hundred and seventy-nine observations have been made during the year, each observation taking at least an hour. The action taken by this department, chiefly a verbal notice combined with practical advice, has resulted in the abatement of 15 nuisances from the emission of black smoke, and the fixing of appliances for such abatement is now in hand at several other factories.

Combined or Party Drains.

Nine combined or party drains running under private property to which the drains of 51 houses were connected, have been re-laid during the year, action being taken under Section 41 of the Public Health Act, 1875, and Section 34 of the Bristol Corporation Act, 1905, the cost of the work being apportioned amongst the owners by the City Surveyor.

Slaughter Houses.

The Slaughter Houses in the City now number 97, being 2 more than last year, 1 annual license having been granted, and the slaughter house for foreign animals at Hotwells has been renewed. There are now 57 with the old permanent licences, 36 annual, one for foreign animals at Avonmouth, 1 at Hotwells, and 2 Knackers' yards.

These are all visited at irregular but frequent intervals by the two Urban Meat Inspectors, Messrs. Thomas and Gitsham, those for the slaughter of bacon pigs being visited daily. During the year these two Inspectors were responsible for the destruction of 32 tons 14 cwt. 2 qrs. 12 lbs. of meat of various kinds, consisting of the entire carcasses of 14 beasts, 12 sheep, 116 pigs, 2 calves, and 1 lamb; the remainder being parts of carcasses and odd pieces of meat; also four head of poultry and game, 21 rabbits, 797 packages of fish (not weighed), 1934 of vegetables and 860 of fruit, all of which was unfit for food, and was voluntarily surrendered to them without any trouble. 75,064 English pigs, 125 New Zealand, 10 Chinese, 3,823 Dutch, 48 American, and 198 Argentine pigs were inspected during the year.

The limewashing and cleansing of the slaughter houses, as required by the Bye-Laws, has been so well carried out that no Statutory notice was required. Many improvements in the internal arrangements have been effected, particular attention being given to floors and paving.

It must be quite obvious that two Meat Inspectors cannot possibly be at all these private slaughter houses at the time of killing, scattered as they are throughout the City and miles apart. It is thus apparent that many carcasses escape inspection until they get to the shops where the offal is not taken as a rule. It is, however,

with much pleasure that I again bear testimony to the helpful manner of the majority of the butchers and bacon curers in the City, who, when they have a doubtful carcase and an Inspector is not in the neighbourhood, telephone to the Office for one to come at once; this he does and his decision as to the condition of the carcase is final. I must again express my regret that apparently there is no prospect of the provision of Public Abattoirs.

Factory and Workshop Act, 1901.

I am pleased that I can again report that the work in connection with this Act has been carried on most amicably between H.M. Inspectors of Factories and this department. The workshops now registered are 1,654, an increase of seventy-five over last year; but the numbers vary very considerably from year to year. The appended summary table and Medical Officer of Health's report on the Factory and Workshop Act shows that 505 nuisances of various kinds were found and abated during the year, and 2,452 visits were paid.

The houses of 357 outworkers were visited, in which 5 minor sanitary defects were found and successfully dealt with under notice, either written or verbal, but in these cases a verbal notice given in a kindly manner is generally sufficient. 48 intimations of Sanitary defects found in factories were received from H.M. Inspectors, and 7 of protected persons found in factories were sent to them from this department.

Offensive Trades.

Offensive trades have received the usual attention, 30 Nuisances of various kinds found to exist have been abated under notice, either written or verbal, generally accompanied by some suggestion for the adoption of

improved methods to prevent recurrence. These suggestions are generally received in the spirit in which they are given.

The limewashing and general cleanliness of the walls and floors are specially looked after.

Dairies, Cowsheds and Milk-Shops.

Inspector Leat has again been very energetic in carrying out the duties in connection with these places, which require great tact, combined with firmness and courtesy. He has thus been able to effect great improvements in every direction, without being in any way aggressive. The lighting, ventilation, paving, water supply and general cleanliness of cowsheds have been extremely well looked after during the year. There are now 114 cowsheds, with accommodation for 942 cows within the city boundaries.

During the year 61 Dairymen, Cowkeepers, and Purveyors have been registered, consisting of:—Purveyors, 42; Dairymen, 15; and Cowkeepers, 4. One of the latter resides outside the City, but purveys milk within the City. The purveyors of milk registered during the year consist chiefly of small shopkeepers; and attention has been paid to the cleansing of the premises and utensils used.

The dairies and the large milkshops gave very little trouble, but the small general shops where milk is retailed in very small quantities require a large amount of attention, as, generally speaking, the milk is stored and sold under conditions which are not at all compatible with cleanliness, and I hope that in the near future the storage and sale of milk will be prohibited in all shops, except those used for dairy products only.

During the year Inspector Leat has taken 38 samples of milk. 29 of these samples were taken for Tuberculosis and 9 samples for dirt examination. The results of the examination of the 29 samples showed no evidence of Tuberculosis infection, and the nine samples for dirt examination were fairly satisfactory.

He has also given a considerable amount of attention to premises where ice-cream is manufactured and sold, particular attention being given to the cleanliness of premises, utensils, and means of storage.

Common Lodging Houses and Institutions.

There are now 41 such houses in the City, 36 under private control, 1 belonging to the Corporation, and 3 are charitable Institutions, and one under the Military Authorities. There is a total accommodation in the private houses for 1,216 persons, consisting of 1,146 single male persons, 50 single females, and 10 married couples (double beds), placed in 208 rooms; the Municipal Lodging House has accommodation for 120 males, all lodged in separate cubicles; the Institutions accommodate 220 males and 18 females, and the new Lodging House (now in the Military Authorities' occupation) 180. making a total of 1754 beds.

There are now only three houses in which both males and females are taken in, and in one of these the married couples and single women's sleeping rooms are in a house separated from the male side, and in another only two married couples are accommodated. One house accommodating 20 has been apportioned to single women only, with separate entrance yard, kitchen, lavatory, and sanitary conveniences.

In supervising these places it was necessary to make requirements in respect of general cleansing, repair of

roofs, dilapidations, water-closets, the provision of ash-boxes, cure of smoky chimneys, &c., in 25 cases, all of which were duly complied with.

The Regulations were well observed in the majority of the houses, and no case requiring proceedings came under notice. The 75 limewashing notices given were also promptly carried out, considering the difficulty in getting labour at this time.

In concluding my report I feel that I must express my gratitude to the Health Committee for the support always given me in the discharge of my duties, and more especially for the very kindly consideration shown to me during my recent long and severe illness; also to the Medical Officer of Health, Dr. Davies, for invaluable advice and assistance, always so courteously and kindly given. I also desire to express my appreciation of the manner in which the Staff of Inspectors discharge their duties. They work together like a machine for the betterment of the sanitary conditions of the City and the health of the citizens.

My thanks are again due and are hereby gratefully tendered to the Town Clerk and his Assistants, and to the City Engineer and his staff for much valuable advice and assistance.

I am, Gentlemen,

Your obedient Servant,

JAMES W. KIRLEY,

Chief Inspector of Nuisances.

**Summary of Nuisances Abated and Work done under the Supervision
of the Inspectors in the Health Department during the
Year ending December 31st, 1914.**

Prepared by the Chief Inspector of Nuisances.

NATURE OF WORK.	By District Inspectors	By Inspector of Dairies, &c.	By Inspector of Workshops &c.	By Inspector of Tenement Houses, &c.	By Inspectors of Slaughter Houses, &c.	By Inspector of Common Lodging Houses	By Inspector of Bake- houses	Total
Visits and revisits ...	44143	3445	2452	2621	20849	301	1276	75087
Drains relaid ...	276	3	10	2	2		2	295
Do. partially relaid ...	632	21	29	46	3		12	743
Sink Troughs fixed ...	573	12	5	17	2			609
Sinks, drains, &c. trapped	1198	36	31	28	12		2	1307
W C.'s fitted with new pans, &c. ...	834	18	53	57	6		3	971
Do. repaired and cleansed ..	201	9	63	4		1	7	285
Do. fitted with flushing appliances	242	9	52	38	5	1		347
Additional W.C. accommodation ...	24		32					56
Premises repaired ...	706	13	4	140	1	5	16	885
Roofs repaired ...	505	25	7	19	2	8	11	577
Yards, &c., paved, floors repaired...	830	53	14	62	10	2	12	983
Rooms cleansed, papered, &c. ...	2093		104	245				2442
Passages do. ...	481		39	68				588
Cesspools abolished ...	9	1						10
Offensive deposits removed ..	130	21		7	14		5	177
Manure pits, refuse bins provided	9	3			1			13
Keeping of pigs, &c. prohibited	128	1						129
Polluted wells closed ...	6	2						8
Company's water provided ...	22	7						29
Overcrowding nuisances abated ...	57		1	8				66
Dairies, &c. improved ...		18						18
Workrooms better ventilated ..			16					16
Offensive trades, nuisances abated			30					30
Smoke nuisances abated			14			1		15
Limewashing, &c., secured ..		567			8	75	135	785
Other nuisances abated ...	486	6	1	106		18	26	643
TOTALS ...	9442	825	505	847	66	111	231	12027

No. of Complaints received and attended to	...	...	1329
" Offensive Trades visited	...	...	95
" Smoke observations taken	...	...	179
" Times smoke test applied to drains...	...	...	1122
" Notices served, informal	...	...	2614
" Formal Notices, and Orders	...	...	394
Half-yearly Cleansing Notices served, Common Lodging-Houses			75
" " " " Bake-Houses			122
" " " " Dairies, Cowsheds, &c			336
" " " " Slaughter Houses			90
Yearly " " " " Tenement Houses			325
No. of Visits to Houses re Infections disease	...	...	9308
" Houses disinfected after infectious disease	...	...	3739
" Articles of bedding, &c., removed and disinfected	...	...	94935
" " " " and burnt	...	...	848
Total number of articles dealt with	...	...	95783
Weight of Meat destroyed as unfit for food	32 tons 14 cwt. 2 qrs. 12 lbs.		

JAMES W. KIRLEY,

Chief Inspector of Nuisances.

TABLE 2.
Summary of Work effected in the Health Department during Twelve Years—1903-1914.

Prepared by the Chief Inspector of Nuisances.

TABLE SHOWING THE NUMBER OF NUISANCES ABATED AND OTHER WORK DONE IN EACH YEAR
SINCE 1903.

	1903	1904*	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
Number of Nuisances abated	10542	11007	12232	10313	10369	9657	9364	8742	13290	11658	10936	12027
Polluted Wells closed ...	11	8	22	15	8	3	3	5	14	9	7	8
Premises supplied with Co's Water	47	51	91	50	44	33	34	49	97	69	40	29
Houses disinfected ...	2866	2229	1950	2070	2057	1759	1726	2089	2080	2008	2646	3739
Articles of Bedding, &c., disinfected or destroyed	63919	52813	53488	51026	46137	39841	45286	47444	51713	47176	54105	95783

* Enlarged City.

TABLE 3.

Year	DAIRIES AND MILK SHOPS.			COWSHEDS.	
	Number Inspected	Defects Found	Dis-continued	Number Inspected	Defects Found
1890	545	157	100	35	19
1891	858	472	115	36	13
1892	1,805	285	108	1,173	33
1893	1,751	161	126	1,069	45
1894	1,880	189	56	1,089	41
1895	1,964	145	53	1,587	31
1896	1,972	136	62	2,426	39
1897*	2,058	97	50	2,063	55
1898	2,075	121	65	2,466	19
1899	2,187	101	73	2,499	33
1900	2,142	43	78	2,347	30
1901	1,964	89	120	2,184	33
1902	1,968	78	100	2,620	31
1903	1,809	72	93	2,049	39
1904†	1,558	117	100	2,340	36
1905	1,476	140	39	2,453	37
1906	1,476	83	97	2,340	38
1907	1,471	107	47	2,379	40
1908	1,450	72	20	1,875	13
1909	1,100	41	27	1,114	12
1910‡	937	38	14	340	25
1911	2,342	76	37	533	20
1912	2,765	81	22	497	15
1913	2,583	82	35	478	13
1914	3,007	103	28	438	7

* City enlarged in November, 1897.

† City enlarged in October, 1904.

‡ From June only.

City of Bristol.

FACTORY AND WORKSHOP ACT, 1901.

REPORT OF THE MEDICAL OFFICER OF HEALTH ON THE
ADMINISTRATION OF THE ACT IN THE CITY OF BRISTOL
DURING THE YEAR 1914 (Sec. 132, F. & W. Act, 1901).

Workshops.

The Factory and Workshop Act (1891) transferred the Sanitary control of "Workshops" and "Workplaces" from the Inspector of Factories to the City Council, acting as the Urban Sanitary Authority.

A Special Inspector of Workshops was appointed: workshops were at once placed on the Register and inspected, and this control has been continuously exercised since its commencement up to the present. Upon the extension of the City in 1897, a second special Inspector of Workshops was appointed; in October, 1910, one of these Inspectors was transferred to District work. The progress of the work year by year is shown in the following table:—

TABLE I.

WORKSHOPS.

CITY OF BRISTOL.

Showing particulars in regard to the Inspection of Workshops since 1891.

Year.	Population of City.	No. of Workshops on Register	No. of Nuisances abated.	Visits and Revisits	Particulars sent to H.M. Inspector	Communications received from H.M. Inspector.
1892	223,592	134	215	970	—	5
1893	225,028	349	568	2377	303	15
1894	226,578	584	644	2188	128	18
1895	228,139	764	558	1978	29	32
1896	230,623	881	578	2456	10	35
1897	232,242	1042	660	2674	14	19
CITY ENLARGED.						
1898	316,900	1123	1203	4943	16	21
1899	320,911	1602	1117	4494	37	16
1900	324,973	1800	1004	4263	13	15
1901	329,086	1846	1005	4875	12	25
1902	334,632	1872	1187	5480	21	62
1903	338,895	1532	1110	5885	39	71
1904	343,204	1537	1237	5563	45	88
CITY ENLARGED.						
1905	358,515	1611	1366	4973	25	52
1906	363,223	1652	1058	5141	14	37
1907	367,979	1611	1305	5224	36	63
1908	372,715	1740	1306	5595	19	50
1909	377,642	1852	1154	5947	12	41
1910	387,511	1874	1325	5443	12	14
1911	357,509	1483	701	2685	8	22
1912	359,400	1518	445	2681	16	26
1913	361,362	1579	652	2556	7	45
1914	363,312	1654	505	2452	7	48

The details of work secured during the year 1914 are shown in the following table :—

TABLE 2. Workshops. CITY OF BRISTOL.

Work secured by the Special Inspector of Workshops etc., in the City of Bristol, during the year, 1914.

Total Visits and Re-visits	...	2,452
Total Nuisances abated ...	...	505

PARTICULARS OF NUISANCES DEALT WITH.

DRAINAGE AND FILTH NUISANCES	{	Drains entirely relaid - -	10
		Drains partially relaid - -	29
		W.C.'s fitted with new pans -	53
		W.C.'s cleansed and amended-	63
		W.C.'s fitted with flushing appliances	52
		Additional W. C. accommodation provided - - - -	32
		Sinks, Drains, etc., trapped -	36
		Offensive Deposits removed -	—
STRUCTURAL DEFECTS	{	Defective Roofs repaired -	11
		Yards paved or Floors repaired	14
LIMEWASHING AND CLEANSING	{	Workrooms and Passages lime- washed and cleansed -	143
VENTILATION AND OVER- CROWDING	{	Nuisances from overcrowding abated	1
		Better Ventilation secured in Work- rooms - - - -	16
WATER SUPPLY	{	Company's Water provided -	—
		Other Nuisances - - -	45

Home Work.

(SECS. 107 TO 115.)

The following table shows particulars with regard to the lists of Outworkers received during the year 1914. The lists are kept by the Town Clerk, who forwards to the Medical Officer of Health the names and addresses of those Outworkers who reside within the District of the City of Bristol.

TABLE 3.		CITY OF BRISTOL.		
Workshops.				
OUTWORKERS.				
Showing Lists received during the year 1914.				
Nature of Employment	February Lists		August Lists	
	No. of Lists	No. of Outworkers	No. of Lists	No. of Outworkers
Boot and Shoe Making	14	160	6	53
Cabinet Making, etc.	1	2	1	2
Manufacture of Wearing Apparel ..	65	1148	44	864
Other Trades ..	1	13	..	..
	81	1323	51	919

Upon receipt of the lists of Outworkers the Workshop Inspector visits the premises as far as possible in conjunction with his work under the other provisions of the Act. The number of premises visited in 1914 was 357, and 5 sanitary defects were found to exist, which were rectified under written notice. In addition to the defects referred to above, the premises of 120 outworkers

were lime-washed and cleansed at the verbal request of the Inspector. In 18 instances it was found that wearing apparel was being made, cleaned, or repaired in the houses where one of the inmates was suffering from an Infectious Disease (Sec. 110), but no action was required to be taken under this Section. The wearing apparel was in each instance disinfected before return to the factory. All such conditions as are specified in Sections 109 and 110, have, since the adoption of the Notification Act in 1890, been most carefully guarded against by a complete system of administering the Notification and Public Health Acts, in which these questions have always received special attention.

Factory and Workshop Act, 1901.

Inspection of Bakehouses for the year 1914.

Report of the Inspector in respect of work done under the Provisions of the above Act, with particulars of the conditions found.

The number of Bakehouses in operation at some period of the year was 307, or 7 less than in 1913.

Inspection operations under the provisions of the Act of 1884 were commenced in that year, and have been regularly continued since.

This year 1276 inspections of Bakehouses have been made—33 more than last year.

It was found that the Limewashing Regulations had been better carried out, as 41 less requirements had to be made for this to be done.

Defaults in general cleaning of floor, fittings, utensils, etc., decreased in number from 46 to 41. A higher standard is constantly urged where necessary in this respect, and with success in most cases.

The general condition of Bakehouses is improving year by year.

The number of Bakehouses in use, that come within the provisions of the Underground Bakehouse Act was 23, but only sixteen of these are totally underground, the remainder being only partially so.

All the notices, numbering 192, were complied with, or were in hand at the end of the year.

S. O. DIMOND,

Inspector of Bakehouses.

CITY OF BRISTOL.

Workshops.

TABLE 4.

BAKEHOUSES.

Showing defects found and remedied in each year
since bakehouse inspection was instituted.

Year.	Particulars.	Total
1884	Total contraventions found in respect of cleansing, limewashing, defective drains, repairs and defective ventilation.	342
1885	Ditto	244
1886	Ditto	96
1887	Ditto	132
1888	Ditto	69
1889	Ditto	65
1890	Ditto	89
1891	Ditto	80
1892	Ditto	71
1893	Ditto	36
1894	Ditto	57
1895	Ditto	74
1896	Ditto	57
1897	CITY ENLARGED IN 1897.	140
1898	Ditto	178
1899	Ditto	168
1900	Ditto	172
1901	Ditto	151
1902	Ditto	198
1903	Ditto	192
1904	CITY ENLARGED, including special work required in underground bakehouses.	250
1905	Ditto	230
1906	Ditto	232
1907	Ditto	281
1908	Ditto	205
1909	Ditto	246
1910	Ditto	201
1911	Ditto	232
1912	Ditto	244
1913	Ditto	246
1914	Ditto	192

FACTORY ACT.

HOME OFFICE FORM.

Annual Report of the Medical Officer of Health for the year 1914, for the City of Bristol.

on the Administration of the Factory and Workshop Act, 1901, in
connection with

FACTORIES, WORKSHOPS, WORKPLACES
AND HOMEWORK.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors or Inspectors of
Nuisances.

Premises. (1)	Number of		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
FACTORIES (Including Factory Laundries) ..	572	31	None
WORKSHOPS (Including Workshop Laundries) ..	1418	36	None
WORKPLACES (Other than Outworkers' premises included in Part 3 of this Report) ..	None	None	None
TOTALS ..	1990	67	None

During 1914, 213 nuisances and defects were remedied under verbal
notice.

2—DEFECTS FOUND IN FACTORIES, WORKSHOPS,
AND WORKPLACES.

Particulars (1)	Number of Defects.			No. of Prosecutions (5)		
	Found (2)	Remedied (3)	Referred to H.M. Inspec- tor (4)			
<i>* Nuisances under the Public Health Acts :—</i>						
Want of Cleanliness	143	143	Re-employment of young persons, 7.	None		
Want of Ventilation	16	16				
Overcrowding	1	1				
Want of drainage of floors	None	None				
Other Nuisances	145	145				
Sanitary Accommodation :—						
Insufficient or defective	32	32				
Unsuitable or defective	168	168				
Not separate for sexes	—	—				
<i>Offences under the Factory and Workshop Act :—</i>						
Illegal occupation of underground bake- houses (S. 101)	None	None				
Breach of special sanitary requirements for bakehouses (Ss. 97 to 100)	None	None				
Other Offences	—	—				
(Excluding Offences relating to outwork which are included in Part 3 of this Report)						
Total	505	505	7	None		

* Including those specified in Sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

*NATURE OF WORK. (1)	OUTWORKERS' LISTS. SECTION 107.							OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.				
	Lists Received from Employers.						Notices served on Occupiers as to keeping or sending lists. (8)	Prosecutions.		Instances. (11)	Notices Served. (12)	Prosecutions (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 119). (16)
	Sending twice in the year			Sending once in the year.				Failing to keep or permit inspection of lists. (9)	Failing to send lists (10)						
	† Lists (2)	† Outworkers		Lists (5)	Outworkers.										
		Con-tractors (3)	Work-men (4)		Con-tractors (6)	Work-men (7)									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Wearing Apparel—Making, &c.—															
(1) Tailoring	80		1590	21		295							18		
(2) Corset-making	6		104	2		23									
(3) Boot-making	12		104	8		109									
(4) Glove-making	—		—	—		—									
Wearing Apparel—Washing															
Furniture and Upholstery	2		4	—		—									
Sacks and Bag-making	—		—	—		—									
Brush-making	—		—	1		13									
Stationery	—		—	—		—									
TOTAL	100		1802	32		440	102	None	None	None	None	None	18	None	None

* If an occupier gives out work of more than one of the classes specified in column 1, and sub-divides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class ONLY, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3 and 4 are the TOTAL number of the lists received from those employers who comply strictly with the statutory duty of sending two lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be EVEN numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year (1)	Number (2)
Important classes of workshops, such as workshop bakehouses, may be enumerated here :—	
Workshops	1654
Workshop Bakehouses	307
Total number of workshops on Register	1961

5.—OTHER MATTERS.

Class. (1.)	Number (2)
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133) .. .	7
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5).	<div> <div>Notified by H.M. } Inspector</div> <div>48</div> </div>
	<div> <div>Reports (of action } taken) sent to H. } M. Inspector .. }</div> <div>48</div> </div>
Other	None
Underground Bakehouses (S. 101) :—	
Certificates granted during the year	None
In use at the end of the year—	
Underground	16
Partially underground	7
	23

NOTE.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December 1904. A further Memorandum on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health, in October 1906.

D. S. DAVIES, M.D., LL.D.,

Medical Officer of Health

METEOROLOGICAL OBSERVATIONS AT BRISTOL, 1914.*

JANUARY.—The sharp frost prevailing at the close of 1913 did not survive New Year's Day, a change of wind to the westward bringing a decided thaw. Ten days of mild conditions and frequent slight rainfalls followed. The 10th proved exceptionally warm and muggy, but during the succeeding night a change of wind to the eastward resulted in an extraordinary decrease of temperature, the mean of the 11th being not less than 15 degrees below that of its predecessor. A fortnight of cold, but not unduly cold, weather followed, but a southerly wind setting in on the 24th, brought a return to mild conditions, and the month concluded with a week of warm south-westerly winds, cloudy skies, and a succession of slight rainfalls.

The mean temperature was 38·7 degrees, this being about the normal, but over two below that of the month in 1913. The maximum reading was 52 degrees upon the 10th, and the minimum 26 degrees upon the 24th—a range of 26 degrees. The warmest day was the 9th, with a mean temperature of 50 degrees; and the coldest the 23rd., mean 30·5 degrees. At Frampton Cotterell the mean was 37·6 degrees, and the extremes 52·7 degrees on the 31st, and 19 degrees on the 1st. Fourteen frosty nights were recorded.

The total rainfall varied from 1·33 inches at Clifton to 0·98 inch at Frampton Cotterell, falling upon 15 and 11 days respectively. At Clifton the heaviest day's fall was 0·28 inch on the 29th, and at Frampton Cotterell 0·23 inch upon the same date.

* The Medical Officer of Health is indebted to Messrs. Harding and Rintoul for these returns.

Mean atmospheric pressure at 9 a.m. was 30·181 degrees, a value much above the average. The extremes recorded were 30·648 inches on the 1st, and 29·787 inches on the 5th. The reading for the 1st proved the highest recorded locally throughout the year.

FEBRUARY.—The month opened with several days of remarkably fine warm weather, but on the 6th a period of rainfall set in, which continued until the 22nd, with only one break upon the 16th. During this period the temperature at first kept much above the normal, but later the weather in this respect became more seasonable. The series of rainfalls were brought to a close with the passing of a cyclonic disturbance of great intensity, which advanced to our islands during the night following the 21st, the barometric readings on the following morning being unusually low all over our islands. A slow but consistent recovery of pressure ensued, accompanied by dry quiet weather until the 28th, when rain again set in.

The mean temperature was 44·8 degrees, a value exceeding the average by 5 degrees; this being the 5th year in succession in which the month has shown an excess of warmth. The maximum reading was 56 degrees on the 14th, and the minimum 32 degrees on the 25th—a range of 24 degrees. The warmest day was the 14th, with a mean temperature of 51 degrees; and the coldest the 24th: mean 40 degrees. At Frampton Cotterell the mean was 44·2 degrees; and the extremes 55·6 degrees on the 3rd and 4th, and 27·8 degrees on the 26th. Six frosty nights were observed.

The rainfall at Clifton was 3·46 inches, falling upon 19 days; and at Frampton Cotterell 2·87 inches, upon 15 days. These values show an excess locally of about an inch. At Clifton the heaviest day's fall was 0·49 inch on the 7th, and at Frampton Cotterell 0·43 inch on the 13th.

Mean atmospheric pressure was much below the normal, the value from observations taken at 9 a.m. being 29·716 inches. The extremes recorded were 30·143 inches on the 27th, and 28·524 inches on the 22nd. Upon this date the readings were below 29 inches over the whole of our islands, the lowest value reported being 28·05 inches at Dublin.

MARCH.—For the fourth year in succession, this month brought an excessive rainfall, the amount on this occasion nearly equalling that recorded for the month in 1912, when the rainfall was greater than that of any March for forty years. Although so wet, however, the month was not without its good points, for, as conditions were almost continuously of a southerly to Westerly type, the weather was quite free from the bitter Continental winds which are so feared at this season of the year. The closing day proved the finest and most spring-like of the month.

The mean Temperature was 44·3 degrees; this exceeding the average by about two degrees, although slightly below that of the month in 1913. The maximum recorded was 65 degrees on the 31st, and the minimum 29 degrees on the 11th, showing a range of 36 degrees. The warmest day was the 31st, with a mean temperature of 57·5 degrees; and the coldest the 9th: mean 38·5 degrees. At Frampton Cotterell the mean was 44 degrees; and the extremes 63·2 degrees on the 31st, and 28·3 on the 22nd. Six frosty nights were recorded.

The total rainfall varied locally from 4·82 inches—falling upon 26 days at Clifton—to 4·04 inches upon 25 days at Frampton Cotterell. These values show the fall to be just double the normal, the figures for Clifton being just a quarter of an inch below the very wet March of 1912. The heaviest fall in twenty-four hours at Frampton Cotterell was 0·76 inch on the 8th.

Mean atmospheric pressure at 9 a.m. was 29.624 inches, a value much below the average; only two previous months during the present century possessing lower figures, these being February, 1904, with 29.596 inches, and March, 1909, with 29.547 inches. The maximum pressure recorded was 30.185 inches on the 31st, and the minimum 28.779 inches on the 20th.

APRIL.—The hope that the delightful day with which one of the wettest Marches on record closed, presaged a radical change of weather, did not at first appear likely to be fulfilled, rain falling daily until the 11th, accompanied by some very rough winds. Upon that date, however, a complete change took place; and, apart from a slight shower on the 22nd, not another rainfall occurred. With little exception, throughout this long period, the sky was cloudless, and at times the warmth equalled that of summer; maxima of 70 degrees being recorded several times. To find so warm an April, indeed, it is necessary to look back to the unequalled springtime of 1893, although in respect to its fine weather and prevailing sunshine, the month two years ago was very similar.

The mean temperature exceeded the average locally by nearly four degrees, the figures for Clifton being 51.5 degrees; a year ago the value was 47.7 degrees. The extremes recorded were 71 degrees on the 21st, and 35 degrees on the 9th and 15th. The warmest day was the 29th, with a mean temperature of 58 degrees; and the coldest the 7th; mean 43 degrees. At Frampton Cotterell the mean was 49.8 degrees, and the extremes 72 degrees on the 21st and 29th, and 30.7 degrees on the 15th. There were two frosty nights at this station.

The rainfall at Clifton was 1.76 inches, and at Frampton Cotterell 1.25 inches; the number of rainy

days in each instance being 11. These figures show a deficiency of about half an inch.

Mean atmospheric pressure was 30.008 inches, a value well above the normal. The greatest pressure recorded at 9 a.m. was 30.589 inches on the 26th; and the least 29.421 inches on the 7th.

MAY.—After a couple of fine but very cold days, conditions became very wet and rough, rain falling upon nine successive days. On the 12th, however, the weather cleared up, and ten days of sunshine and warmth followed. This was brought to a close by a severe thunderstorm during the night succeeding the 22nd. Very cold weather then set in, culminating on the early mornings of the 26th and 27th in frosts of great severity for the time of year; these doing damage of the most serious description. The month closed with a few cold, overcast and showery days.

The mean temperature was 53.4 degrees, a value very near the average; the extreme cold of the opening and closing days being counterbalanced by the warm, summer-like weather of the third week. The maximum recorded was 74 degrees on the 20th, and the minimum 34 degrees on the 2nd and 27th. The warmest day was the 20th, with a mean temperature of 62 degrees; and the coldest the 2nd; mean 45 degrees. At Frampton Cotterell the mean was 52.1 degrees, and the extremes 74.3 degrees on the 18th, and 29 degrees on the 27th. Three frosty nights were observed.

The rainfall locally varied from 2.02 inches at Clifton, to 1.43 inches at Frampton Cotterell; falling upon 13 and 16 days respectively. The value at Clifton shows a deficiency of 0.23 inch.

Mean atmospheric pressure at 9 a.m. was 30.116 inches; these figures being in excess of those for any May during the present century, apart from the month in 1905, when the mean was 30.147 inches. The extremes of pressure were 30.410 inches on the 18th, and 29.485 inches on the 7th.

JUNE.—This month commenced with a week of dry, though in other respects, somewhat changeable weather, but the second week brought several heavy and welcome rainfalls. Fine summer-like conditions followed to the 19th, the temperature rising on fine days to 75 degrees—an ideal warmth for a summer's day. Some showery and somewhat thundery weather succeeded, but settled conditions again set in on the 23rd. At first the temperature was moderate, but the 29th was very warm, while the closing day proved the hottest experienced locally since the 16th of the month in 1913.

The mean temperature was 59.3 degrees, a value very slightly below the average, but a little above that of the month a year ago. The maximum was 81 degrees on the 30th, and the minimum 42 degrees on the 8th. At Frampton Cotterell the mean was 58.7 degrees, and the extremes 82.3 degrees on the 30th, and 39 degrees on the 26th. The warmest day was the 30th, with a mean temperature of 69 degrees; and the coldest the 8th: mean 58.5 degrees.

The total rainfall at Clifton was 2.56 inches, and at Frampton Cotterell 1.83 inches; falling upon 10 and 9 days respectively. These figures show a slight excess locally, and are twice the amount recorded for the month a year ago.

Mean atmospheric pressure at 9 a.m. was 30.064 inches, a value above the average. The greatest pressure recorded was 30.391 inches on the 26th, and the least 29.612 inches on the 9th.

JULY.—The 1st brought very remarkable weather, this day not only proving the hottest of the year, but it was also marked by a succession of severe thunderstorms. One of these, which prevailed during the late afternoon, resulted in torrential rains over the Western portion of the city and neighbourhood, and was immediately preceded by a very fierce and prolonged gust of wind. A complete break-up of the weather followed, scarcely a day passing during the remainder of the month without, at least, a shower of rain. Still, there was a good deal of fair weather, and apart from a few days at the close of the third week, when a cold north-westerly wind prevailed, the temperature was well up to the normal. A great improvement followed this cold wind, but the 31st brought a falling barometer, much cloud, and finally a steady rainfall.

The mean temperature was 61·3 degrees, a value nearly a degree below the average, but half a degree above that of the month in 1913. The extremes were 84 degrees on the 1st, and 47 degrees on the 4th. The warmest day was the 1st, with a mean temperature of 72 degrees, and the coldest the 26th: mean 56 degrees. At Frampton Cotterell the mean was 61 degrees; the maximum recorded being 85·6 degrees on the 1st, and the minimum 46·3 degrees on the 28th.

The total rainfall at Clifton was 5·60 inches, and at Frampton Cotterell 4·70 inches; falling upon 21 and 20 days respectively. These amounts were nearly twice the average. At Clifton the fall recorded for the 1st totalled 1·61 inches, this being the heaviest daily fall for the year.

Mean atmospheric pressure was 29·883 inches, a value much below the normal. The extremes of pressure recorded at 9 a.m. were 30·190 inches on the 9th, and 26·516 inches on the 20th.

AUGUST.—Very unsettled and at times rough weather prevailed until the 10th, when a general improvement set in. A few days of warmth and sunshine followed, but the 15th brought a heavy rainfall. The weather, however, soon cleared up again, and the remainder of the month proved generally fine and summer-like. Upon the whole the month was of a very favourable description, for, while there was no want of rainfall, the abundant sunshine prevailing after the 9th allowed harvesting to proceed without hindrance.

The mean temperature was 61·8 degrees, these figures being nearly a degree above the average, and almost precisely similar to those of the month a year ago. The maximum recorded was 81 degrees on the 14th, and the minimum 48 degrees on the 11th. The warmest day was the 14th, with a mean temperature of 69 degrees, and the coldest the 6th: mean 57·5 degrees. At Frampton Cotterell the mean was 61·4 degrees; and the extremes 80·9 degrees on the 14th, and 43·9 degrees on the 11th.

The rainfall varied locally from 2·91 inches at Clifton, to 2·37 inches at Frampton Cotterell; falling upon 16 and 14 days respectively. These figures, although over an inch above those of a year ago, show a deficiency for the month at Clifton of 0·94 inch.

Mean atmospheric pressure was 30·031 inches, a value in excess of normal. The extremes recorded at 9 a.m. were 30·341 inches on the 11th, and 29·570 inches on the 2nd.

SEPTEMBER.—The weather of this month consisted of three well marked periods. During the 1st, which lasted to the 10th, fine summer-like conditions prevailed, sunshine being most abundant, while the temperature—with one exception—rose to 70 degrees and upward every day. That date, however, brought a considerable

rainfall, and for over a week more or less precipitation occurred daily; this unsettled period being marked on the 14th by the first autumn gale of the season. With the 19th a complete clearing-up of the weather took place, and no rain whatever fell onward to the close of the month. During this period the days were warm, sunny, and pleasant, but the nights somewhat cold, ground frost occurring frequently.

The total rainfall at Clifton was 1·63 inches, and at Frampton Cotterell 1·75 inches; falling upon 11 days. These quantities show a deficiency of just over 1 inch.

The mean temperature was 57·3 degrees, a value about half a degree above the normal. The maximum recorded was 77 degrees upon the 3rd, and the minimum 38 degrees upon the 21st and 30th. The warmest day was the 10th, with a mean temperature of 95 degrees; and the coldest the 21st: mean 48·5 degrees. At Frampton Cotterell the mean was 56 degrees, and the extreme 79·6 degrees on the 3rd, and 39·5 degrees on the 30th. At this station one frosty night was recorded.

Mean atmospheric pressure was above the average, the figures for 9 a.m. being 30·093 inches. The maximum was 30·444 inches on the 27th, and the minimum 29·497 inches on the 17th.

OCTOBER.—The dry period lasted until the 14th of this month, but the weather, although quiet and pleasant, became rather dull and cloudy. That day, however, proved very wet and gloomy, but with the 15th, anti-cyclonic conditions again returned. But this time they were to be of comparatively brief duration, rain again setting in during the early hours of the 22nd, and for the remainder of the month falls, never very heavy, were recorded daily. Looked at as a whole, the

month was unusually fine and quiet, the high winds and heavy rainfalls, which as a rule prevail at this season, being entirely absent.

The mean temperature was 51·6 degrees, these figures, although two below that of the month in 1913, exceeding the average by 2·1 degrees. The extremes recorded were 67 degrees on the 9th, and 37 degrees on the 29th. The warmest day was the 9th, with a mean temperature of 59 degrees; and the coldest the 28th: mean 43·5 degrees. At Frampton Cotterell the mean was 50·1 degrees; the maximum being 65·5 degrees on the 2nd, and the minimum 29·3 degrees on the 28th. At this station there was one frosty night.

The rainfall varied locally from 2·06 inches at Clifton to 1·84 inches at Frampton Cotterell, falling upon 14 days. These values show a local deficiency of about two inches.

The mean atmospheric pressure was well above the normal, the value for 9 a.m. being 30·031 inches. The extremes recorded were 30·443 inches on the 5th, and 29·318 inches on the 31st.

NOVEMBER.—Unlike its two predecessors, November brought conditions of the most unpleasant and changeable type. During the first week the weather, although wet, was—upon the whole—mild and quiet; this period being followed on the 7th by one of the densest local fogs of recent years. Some rough westerly winds succeeded, with frequent showers, to the 16th, when a change of wind to the northward resulted in a decided fall of temperature, and for just over a week wintry conditions were general. A sharp frost on the 24th, however, was followed by another complete change, and for the rest of the month rain fell daily, accompanied on the concluding days by very rough and squally weather.

The mean temperature was just under one degree above the average, the value being 44·3 degrees. The maximum was 57 degrees on the 3rd, and the minimum 26 degrees on the 21st. The warmest day was the 3rd, with a mean temperature of 52 degrees; and the coldest the 21st: mean 31 degrees. At Frampton Cotterell the mean was 43·8 degrees, and the extremes 58·6 degrees on the 5th, and 22·5 degrees on the 19th. There were six frosty nights.

The rainfall was 4·28 inches at Clifton, and 3·44 inches at Frampton Cotterell; the rainy days being 22 and 20 respectively. These values show an excess of about one inch.

Mean atmospheric pressure was 29·867 inches, these figures showing a decided deficiency for the month. The greatest pressure recorded at 9 a.m. was 30·591 inches on the 18th, and the least 29·188 inches on the 15th.

DECEMBER.—In spite of a very low barometer, the month opened with a very mild and sunny day, this being followed, however, by some of the stormiest of the year. Both on the 2nd and 4th, the wind reached the force of a gale; while, during the early morning of the 5th, a succession of storms of hail and sleet, accompanied by thunder and lightning, were experienced. Some improvement followed, but conditions remained very unsettled, with some considerable rainfalls to the 21st. Then a change of wind to the north, with a rising barometer, promised something more seasonable for Christmas-time. Christmas Day, however, although opening with sharp frost, brought a return to rainfall and wind; similar weather continuing to the close of the year. The 28th proved especially inclement, a

severe storm of wind, rain and snow prevailing during the evening over the southern portion of our islands.

Mean temperature was 39·7 degrees, these figures being just the average, but one degree below that of the month a year ago. The maximum recorded was 52 degrees on the 2nd, and the minimum 28 degrees on the 25th. The warmest day was the 2nd, with a mean temperature of 47 degrees; and the coldest the 23rd: mean 32 degrees. The mean at Frampton Cotterell was 40·9 degrees, and the extremes 54·7 degrees on the 6th, and 23·9 degrees on the 25th. There were 10 frosty nights.

The total rainfall was 7·17 inches at Clifton, and 6·10 inches at Frampton Cotterell; falling upon 24 and 20 days respectively. These figures are more than twice the average and exceed by five inches that of the month in 1913. Only on two previous occasions has the month given a fall of seven inches and upwards, the late Mr. R. F. Sturge, F.R.Met.Soc., recording at Clifton 7·12 inches in 1878, and 7·34 inches in 1911.

Mean atmospheric pressure was 29·574 inches, a value, with one exception, lower than that of any month during the present century. This instance was that of March, 1909, when the value was 29·547 inches. The extremes recorded were 30·263 inches on the 25th, and 28·804 inches on the 14th.

Upon the whole the year was of a fairly average character, although a springtime of great promise was marred by the destructive frosts of the end of May. The very favourable weather which followed in June,

however, and the fine conditions prevailing throughout harvest-time, did much in the way of repairing matters.

H. H. HARDING. F.R. Met. Soc.

For the rainfall values relating to Clifton, and also for those of temperature (except where otherwise noted) given in the foregoing notes, I am indebted to the courtesy of the late Mr. R. F. Sturge, F.R. Met. Soc.

The rainfall values at Clifton are taken at an altitude of 215 feet above sea-level, and those at Frampton Cotterell at 166 feet.

Meteorology for the 52 Weeks, ending 2nd January, 1915.

Height above Mean Sea Level—250 feet.

CLIFTON COLLEGE.

1914	BAROMETERIC PRESSURE at 30° and Sea Level			Highest Mean Daily Temperature	Lowest Mean Daily Temperature	Max. Temperature in Shade	Min. Temperature at 4 ft. above ground	Min. Temperature on ground	Mean Daily Range of Thermometer	Greatest Daily Range of Thermometer	Smallest Daily Range of Thermometer	Mean Humidity	Grains of Vapour in a cubic ft. of air	Prevalent Wind
	Week Ending	Mean Inches	Highest Inches	Lowest Inches										
Jan.	10	30.07	30.28	29.76	42.9	53.6	24.6	24.5	9.7	21.9	3.3	89.3	3.08	S.W.—W.
	17	30.31	30.58	29.86	34.9	40.1	28.2	26.0	5.9	10.6	1.5	85.7	2.05	N.
	24	30.14	30.26	30.04	33.4	46.5	27.3	21.8	6.8	19.2	2.5	78.9	1.72	N.E.
	31	30.10	30.26	29.93	44.6	54.0	27.2	28.4	11.1	21.1	5.4	89.0	3.08	S.—W.
Feb.	7	29.98	30.10	29.65	48.3	55.0	40.2	33.9	9.0	11.8	7.0	85.6	3.11	S.
	14	29.71	29.88	29.45	47.2	55.9	38.8	30.9	11.0	15.9	6.1	84.6	3.11	S.—W.
	21	29.67	30.12	29.17	43.9	51.1	34.1	27.9	8.9	13.3	3.6	83.6	2.68	W.
	28	29.58	30.16	28.54	43.2	54.3	35.0	28.0	12.3	15.6	9.7	90.8	2.70	S.
March	7	29.83	30.12	29.49	46.1	52.8	35.3	29.7	8.0	11.4	4.1	87.3	3.07	W.
	14	29.69	30.06	29.43	44.7	54.7	30.7	27.9	10.1	19.2	1.9	87.7	3.22	W.—S.
	21	29.38	30.00	28.78	42.4	50.1	33.2	31.6	10.4	15.4	6.1	80.3	2.45	W.
	28	29.48	30.04	29.19	43.5	52.5	33.2	29.0	13.3	16.5	8.2	86.0	2.71	S.
April	4	29.99	30.18	29.88	51.7	63.9	42.4	40.0	11.7	15.1	8.8	83.1	3.51	S.—W.
	11	29.63	29.77	29.45	48.2	57.1	37.1	35.0	10.8	16.9	7.4	80.2	3.08	W.—S.
	18	30.30	30.55	30.08	49.8	65.1	36.5	31.8	20.7	24.7	16.7	64.3	2.81	E.
	25	30.33	30.45	30.23	54.9	73.5	41.5	36.2	20.3	30.9	9.1	71.7	3.33	E.—W.
May	2	30.31	30.61	30.00	52.9	65.6	45.6	36.2	20.3	26.0	5.9	68.2	3.06	N.E.
	9	29.75	30.03	29.51	52.3	63.4	44.2	39.6	9.6	18.1	7.8	77.9	3.44	W. by N.
	16	30.22	30.38	30.03	53.1	71.3	39.0	35.0	16.8	22.2	8.7	74.6	3.28	N.E.
	23	30.30	30.44	29.87	60.2	74.1	45.0	38.7	20.7	26.9	8.5	70.9	3.98	N.W.
June	30	30.21	30.34	30.08	51.7	63.0	37.8	29.8	14.6	24.7	6.2	69.7	3.14	N.W.
	6	30.15	30.28	30.08	57.8	69.1	45.2	40.2	14.9	18.6	11.7	72.6	3.77	W.
	13	29.85	30.01	29.63	56.5	75.1	42.3	40.0	15.6	21.1	8.9	79.5	3.84	E.—N.
	20	3.07	30.13	29.96	62.8	75.1	51.2	50.3	17.7	22.4	8.1	75.5	4.55	N.E.
..	27	30.15	30.40	29.81	60.1	75.1	46.7	46.0	16.8	26.3	8.9	74.3	4.31	W.

Rainfall of 1914
Taken at Clifton College.

WEEK ENDING	RAIN—INCHES.	WEEK ENDING	RAIN—INCHES.
January 10	·840	July 18	·363
„ 17	·010	„ 25	·588
„ 24	—	August 1	1·23
„ 31	·705	„ 8	·505
February 7	·820	„ 15	·793
„ 14	1·340	„ 22	·050
„ 21	1·65	„ 29	·490
„ 28	·225	Sept. 5	·000
March 7	·780	„ 12	·694
„ 14	2·49	„ 19	·937
„ 21	·745	„ 26	nil
„ 28	·552	October 3	nil
April 4	0·871	„ 10	nil
„ 11	1·182	„ 17	·312
„ 18	nil	„ 24	·600
„ 25	·010	„ 31	1·050
May 2	nil	Nov. 7	1·450
„ 9	1·290	„ 14	0·417
„ 16	·180	„ 21	0·358
„ 23	·403	„ 28	1·336
„ 30	·115	Dec. 5	2·356
June 6	·020	„ 12	1·082
„ 13	1·537	„ 19	1·404
„ 20	·080	„ 26	1 026
„ 27	·842	1915.	
July 4	2·540	January 2	2·426
„ 11	1·448		

D. RINTOUL.

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